



United States
Department of
Agriculture

Office of the
General
Counsel

Washington,
D.C.
20250-1400

May 6, 2011

Elliott Gilberg, Director
Office of Site Remediation Enforcement
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Mail Code 2271A
Washington, D.C. 20004



**SUBJECT: San Mateo Mine Site - Request for EPA Concurrence with USDA
Exercise of CERCLA Section 106(a) Authority**

Dear Mr. Gilberg:

The United States Department of Agriculture ("USDA") is seeking EPA concurrence with USDA's exercise of its authority under Section 106 of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") at the San Mateo Mine Site ("the Site"), a former uranium mine in Cibola County, New Mexico, located entirely on land under the jurisdiction, custody, and control of USDA. As an initial step in its exercise of CERCLA Section 106(a) authority, USDA is proposing to issue a Unilateral Administrative Order ("UAO") requiring the performance of a removal action by the responsible parties at the Site. See Attachment 1. They are: United Nuclear Corporation ("UNC"), El Paso Natural Gas Company ("El Paso"), Homestake Mining Company of California ("Homestake"), and Western Energy Development Corp. ("Western Energy"), hereafter collectively ("the Respondents").

Pursuant to Executive Order 13016 and the Memorandum of Understanding ("MOU") among the United States Environmental Protection Agency ("EPA"), the Coast Guard, and the Departments of Commerce, Interior, Agriculture, Defense, Energy, and Justice concerning the exercise of authority under Section 106 of CERCLA ("the MOU"), the USDA respectfully requests that EPA concur with the USDA's exercise of Section 106 authority at this Site. In 2009, the Forest Service made its draft Engineering Evaluation/Cost Analysis ("EE/CA") for the Site available for public comment, and since that time, USDA has negotiated for the Respondents to perform the removal action needed at the Site under an Administrative Settlement Agreement and Order on Consent. To date, those negotiations have proved fruitless.

Upon your concurrence, the Chief of the USDA Forest Service ("Forest Service") and the Director of the USDA Office of Procurement and Property Management, with the concurrence of the General Counsel, will have the authority under CERCLA Section 106 to issue the UAO to the Respondents to perform the removal action for the San Mateo Mine site. The UAO will become effective ten working days from the date USDA notifies the Respondents, in writing, of EPA's concurrence. The UAO would require the Respondents to perform a non-time-critical removal action for the Site. Upon completion of the current non-time-critical removal action, the Forest Service may perform further investigations onsite. If the Respondents continue to decline

to cooperate in further site investigations without a UAO, USDA, in the exercise of its discretion, may continue to exercise its CERCLA Section 106 authority at this Site and issue a second UAO requiring the Respondents to conduct subsequent removal actions. We understand that no further EPA concurrence will be required for USDA's continued exercise of CERCLA Section 106 authority at this Site. Nevertheless, USDA will continue interagency coordination in this matter and will provide EPA Region 6 the opportunity to review and comment on the significant documents in this matter, including subsequent EE/CAs, Removal Action Memoranda, or Statements of Work for selected removal actions in order to ensure consistency with applicable EPA guidance. Because the Site is located entirely on National Forest System ("NFS") land, and because the releases from the Site directly affect NFS land, the Forest Service is the lead agency for overseeing the CERCLA response at the Site. USDA has incurred response costs of approximately \$278,000 at the Site.

This letter provides the formal notice that is required by section VII.B of the MOU. Under the terms of the Statement of Work ("SOW") attached to the UAO, the Respondents will be required to commence cleaning up the Site without further delay. This non-time critical removal action at the San Mateo Uranium Mine (Site) will reduce the imminent and substantial exposure or threat of exposure to radium-226, radium-228, thorium-228, thorium-230, thorium-232, uranium-234, uranium-235, and uranium-238.

SITE INFORMATION - NEED FOR NON-TIME-CRITICAL REMOVAL ACTION

A. Site Description and History

Rare Metals Corporation began mine development at the San Mateo Mine with construction of the mine shaft in 1957. The first ore was shipped in 1959 as the fourteen hundred foot deep shaft was completed. Rare Metals Corporation operated the mine from 1957 to 1962, when it merged into El Paso, which continued mining operations onsite until 1964.

El Paso sold the San Mateo Mine to UNC in 1964, and UNC operated the mine from 1964 to 1971. Between 1971 and 1981, UNC conducted minor exploration work and claim assessment work onsite.

In 1981, UNC sold its interest in the mining claims onsite to Homestake Mining Company. In 1984, Homestake notified the Forest Service of its intent to abandon all claims and cease all operations. However, Homestake continued to perform assessment work and maintained the claims covering the mine through the 1988 assessment year.

In 2004, Western Energy Development Corporation acquired a number of mining claims in the area, including some claims onsite, and it currently holds those claims.

B. Threats Posed by the Releases of Hazardous Substances at the Site

Uranium ore was mined onsite from a deposit in the Brushy Basin Sandstone approximately 1,057 feet below the surface. The Site included typical work buildings, a fourteen hundred foot deep shaft, a mine waste dump, and settling ponds. The shaft included a pump to dewater the workings. When ore was brought to the surface, it was unloaded and measured into trucks, which transported the ore to a uranium processing mill located offsite.

Waste rock was disposed of onsite in a series of terraces called the Main Waste Rock Pile. A pad consisting of material similar to the Main Waste Rock Pile was constructed on a flat area northeast of the Main Waste Rock Pile. This pad is generally referred to as the North Pad. Since the mine closed in 1971, all buildings and surface facilities have been removed and only small remnants of the former surface structures remain. The main shaft and any emergency or air shafts associated with the mine have been sealed. The Main Waste Rock Pile, North Pad, and several settling ponds remain at the Site.

The Main Waste Rock Pile contains approximately 160,000 cubic yards of uncovered and uncontrolled mine waste. The North Pad contains approximately 13,000 cubic yards of contaminated material. Surface soil and drainages surrounding the mining disturbance are contaminated by wind-borne dust and sediment transported by runoff.

The mine waste onsite contains unsafe levels of external gamma radiation from radionuclides, specifically uranium, thorium, and radium, at levels far above background. The primary exposure pathway at the Site is direct exposure to waste rock, pad material, and surface soil/sediment contaminated with radionuclides. USDA has determined that the Site poses an imminent and substantial endangerment to human health and the environment requiring a response action to abate these continuous releases of hazardous substances.

The removal action approved in the Forest Service's Removal Action Approval Memorandum dated April 18, 2011, provides a comprehensive cleanup of surface contamination. As set forth in the Statement of Work, the response action includes consolidation and capping of waste rock within an onsite repository. This will reduce exposure to gamma radiation and prevent direct contact, inhalation, or ingestion of radionuclides by either people or wildlife. Contaminant migration off-site by erosion will be prevented by consolidating the contaminated material onsite into a repository and installing settling ponds. In accordance with Uranium Mill Tailings Radiation Control Act standards, the concentration of radium-226 will be reduced to background levels plus no more than 5 picocuries per gram.

ADDITIONAL PRP INFORMATION

El Paso is currently incorporated in Delaware. United Nuclear Corporation is a Delaware corporation that is a wholly owned subsidiary of the General Electric Company. Homestake Mining Co. of California is a California corporation and a wholly owned subsidiary of Barrick Gold Corp. Western Energy Development Corp. is currently incorporated in Nevada.

UNILATERAL ADMINISTRATIVE ORDER

The authority for the Forest Service to issue the UAO is Section 106(a) of CERCLA, 42 U.S.C. § 9606(a) and Executive Order 12580, as amended by Executive Order 13016. Executive Order 13016 delegated CERCLA Section 106 authority to USDA "with respect to any release or threatened release . . . affecting (1) natural resources under [USDA] trusteeship, or (2) a . . . facility subject to [USDA] custody, jurisdiction, or control." In this instance, the radionuclide releases are occurring from a site located entirely on NFS land and all of the work required under the UAO is with respect to releases either affecting natural resources under USDA's trusteeship or lands under USDA custody, jurisdiction or control.

REMOVAL ACTION APPROVAL MEMORANDUM

The enclosed Removal Action Approval Memorandum was signed by the Regional Forester for the Southwestern Region on April 18, 2011. See Attachment 2.

OTHER MATTERS

On March 23, 2011, the Forest Service notified the State of New Mexico, the interested Tribes, and the United States Department of the Interior (Fish and Wildlife Service, and Bureau of Indian Affairs) as natural resource trustees, of the potential destruction of natural resources as a result of the releases at the Site. See Attachment 3. The March 23, 2011 letters also notify the recipients of USDA's intent to seek EPA concurrence to exercise CERCLA Section 106 authority at the Site, pursuant to Section VII.B of the MOU.

Attachment 4 lists the contents of the administrative record in support of the current removal action. In addition, the administrative record in support of the UAO includes the enclosed attachments. The Forest Service will make the administrative record available at its Southwestern Region office in Albuquerque. The Forest Service will make copies of those documents not included with this letter available upon request. Fourteen photographs of the Site are attached as Attachment 5.

SUMMARY OF THRESHOLD CRITERIA FOR CONCURRENCE

Section III of the MOU concerning the exercise of authority under 106(a) of CERCLA includes seven threshold criteria. The following presents a brief summary confirming that these criteria are or will be met:

1. The discharge of radionuclides from the Site into the environment is a release or threatened release of hazardous substances affecting lands and resources under the jurisdiction of the Forest Service.
2. Since the Site is located entirely on NFS land, neither EPA nor the Coast Guard has lead agency responsibility for the conduct or oversight of a response action at the Site. See 40 C.F.R. §§ 300.5 and 300.140(b).

3. The Forest Service is in the process of receiving concurrence for the exercise of CERCLA Section 106 authority from EPA.

4. No other Federal Resource Manager has objected to the Forest Service exercising lead jurisdiction over the Site.

5. The exercise of CERCLA Section 106 authority is not prohibited by the limitations set forth in Section V of the MOU because:

- a. The release is not directly and primarily attributable to the Forest Service.
- b. There is no contract or lease between the Respondents and the United States providing for indemnification by the United States.

6. No state, local or tribal agency has proposed, approved or is performing a response action that is inconsistent with the response action proposed in the UAO.

7. As discussed above, the releases of hazardous substances from the Site pose an imminent and substantial endangerment to the public health or welfare or the environment.

The Removal Action proposed is a response action, as contemplated by Section IV of the MOU. In preparing the UAO, the Forest Service has consulted with EPA Region 6 and followed EPA guidance and policy, as contemplated by Section VI of the MOU. The Forest Service has attempted to obtain voluntary performance of the current removal action, which is embodied in the attached UAO. Upon completion of the current removal action, USDA will again attempt to obtain voluntary performance of any subsequent removal action. If necessary to secure cleanup of the Site, USDA may exercise its discretion and issue a second UAO requiring the Respondents to conduct a subsequent removal action.

The items required with the Notice provided by section VII.B of the MOU are either attached or provided above. These include the following:

- 1. The proposed UAO.
- 2. A list of PRPs.
- 3. An explanation of the basis for issuing a UAO to the Respondents.
- 4. Documentation demonstrating coordination with relevant federal, state, and tribal response and natural resource trustee entities.
- 5. Documentation demonstrating compliance with CERCLA § 104(b)(2).
- 6. Identification of the location of the supporting administrative record.
- 7. A map of the Site.

The Forest Service has notified federal and state response agencies of its intent to issue the UAO and of the nature of the removal action proposed. The Forest Service also has notified

state and federal natural resource trustees (Attachment 3). We appreciate your prompt review of the enclosed materials.

Sincerely,

Ronald S. McClain

Ronald S. McClain
Deputy Assistant General Counsel
Pollution Control Team

Enclosures

cc: Michael Hope, USDA OGC, Denver
Jeff Goodman, Director, USDA EMD
Lisa Price, EPA Region 6
Pamela Travis, EPA Region 6
Maria McGaha, Region 3
Steve McDonald, Region 3

List of Attachments:

- Attachment 1 – Unilateral Administrative Order, including Statement of Work
- Attachment 2 – Forest Service Removal Action Approval Memorandum
- Attachment 3 – Letters documenting contacts with Fish and Wildlife Service, Bureau of Indian Affairs, Idaho and interested Tribes on general concurrence, natural resource damage issues, and intent to issue a UAO
- Attachment 4 – Site Administrative Record Index
- Attachment 5 – Photographs of San Mateo Mine Site
- Attachment 6 – Implementation of UAO Reform Questionnaire

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Tab 05: Attachment 5 - Photographs of San Mateo Mine Site

Tab 06: Attachment 6 - Implementation of UAO Reform Questionnaire

UNITED STATES DEPARTMENT OF AGRICULTURE
UNITED STATES FOREST SERVICE
REGION THREE

In the Matter of
IN THE MATTER OF

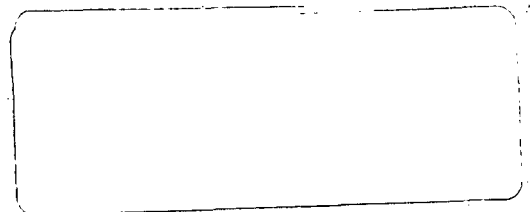
SAN MATEO MINE SITE,
Cibola County, New Mexico

UNITED NUCLEAR CORPORATION,
EL PASO NATURAL GAS COMPANY,
HOMESTAKE MINING COMPANY OF
CALIFORNIA, and WESTERN ENERGY
DEVELOPMENT CORPORATION

UNILATERAL ADMINISTRATIVE
ORDER FOR REMOVAL ACTION

Proceeding Under Section 106(a) the
Comprehensive Environmental Response,
Compensation, and Liability Act
as amended, 42 U.S.C. § 9606(a)

Respondents



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UNILATERAL ADMINISTRATIVE ORDER FOR REMOVAL ACTION

I. JURISDICTION AND GENERAL PROVISIONS

1. This Unilateral Administrative Order ("UAO" or "Order") is issued pursuant to the authority vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a), and delegated to the Secretary of Agriculture by Executive Order 12580, as amended by Executive Order 13016, 61 Fed. Reg. 45871 (August 30, 1996). This authority was further delegated to the Director of the USDA Office of Procurement and Property Management and the Chief of the Forest Service, to be exercised with the concurrence of the General Counsel. 7 C.F.R. § 2.93(a)(17)(xiv).
2. This Order directs Respondents to implement the Removal Action for the San Mateo Mine Site ("the Removal Action"), described in the Statement of Work ("SOW") attached as Appendix A. This Order is issued to Respondents United Nuclear Corporation ("UNC"), El Paso Natural Gas Co. ("El Paso"), Homestake Mining Co. of California ("Homestake"), and Western Energy Development Corp. ("WEDC"), collectively ("Respondents").

II. PARTIES BOUND

3. This Order shall apply to and be binding upon Respondents, their directors, officers, employees, representatives, agents, successors, receivers, trustees, and assigns. Respondents are responsible for carrying out all activities required by this Order. No

change in the ownership, corporate status, or other control of Respondents shall alter Respondents' responsibilities under this Order.

4. Respondents shall provide a copy of this Order to any prospective owners or successors before a controlling interest in any of Respondents' assets, property rights, or stock are transferred to the prospective owner or successor. Respondents shall provide a copy of this Order to each contractor, sub-contractor, laboratory, or consultant retained to perform any Work under this Order, within five (5) days after the effective date of this Order or on the date such services are retained, whichever date occurs later. Respondents shall also provide a copy of this Order to each person representing Respondents with respect to the Site or the Work and shall condition all contracts and subcontracts entered into hereunder upon performance of the Work in conformity with the terms of this Order.

With regard to the activities undertaken pursuant to this Order, each contractor and subcontractor shall be deemed to be related by contract to Respondents within the meaning of Section 107(b)(3) of CERCLA, 42 U.S.C. § 9607(b)(3). Notwithstanding the terms of any contract, Respondents are responsible for compliance with this Order and for ensuring that its contractors, subcontractors and agents comply with this Order, and perform any Work in accordance with this Order.

5. Respondents are jointly and severally liable for implementing all activities required by this Order. Compliance or noncompliance by one Respondent with any provision of this Order shall not excuse or justify noncompliance by any other Respondent. No Respondent shall interfere in any way with the performance of Work in accordance with this Order by any other Respondent. In the event of the insolvency or other failure of any

one Respondent to implement the requirements of this order, the remaining Respondents shall complete all such requirements.

III. DEFINITIONS

6. Unless otherwise expressly provided herein, terms used in this Order which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in the statute or its implementing regulations. Whenever terms listed below are used in this Order or in the appendices or documents attached to this Order or incorporated by reference into this Order, the following definitions shall apply:

- a. "Action Memorandum" or "Action Memo" shall mean the Forest Service's Removal Action Approval Memorandum signed on April 18, 2011, by the Regional Forester, Southwestern Region, and all attachments thereto.
- b. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*
- c. "Day" shall mean a calendar day unless expressly stated to be a working day. "Working day" shall mean a day other than a Saturday, Sunday, or Federal holiday. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the end of the next working day.
- d. "El Paso" shall mean the El Paso Natural Gas Co., a Delaware corporation.
- e. "EPA" shall mean the United States Environmental Protection Agency.
- f. "Forest Service" shall mean the United States Department of Agriculture, Forest Service, and any successor departments or agencies of the United States.

- g. "Homestake" shall mean the Homestake Mining Co. of California, a California corporation.
- h. "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan, promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, including any amendments thereto.
- i. "O&M" shall mean the operation, monitoring and maintenance activities required under this Order and approved by the Forest Service.
- j. "On-Scene Coordinator" shall mean the Forest Service's On-Scene Coordinator for Work at the Site.
- k. "Order" shall mean this Unilateral Administrative Order and all attached appendices and documents. In the event of a conflict between this Order and any appendix this Order shall control.
- l. "Paragraph" shall mean a portion of this Order identified by an Arabic numeral.
- m. "Project Manager" shall mean Respondents' Project Manager for the Work at the Site.
- n. "Removal Action" shall mean those activities to be undertaken by Respondents as specified in more detail in the SOW or this Order.
- o. "Respondents" shall mean United Nuclear Corporation, El Paso Natural Gas Co., Homestake Mining Co. of California, and Western Energy Development Corp.
- p. "Response Costs" shall mean all costs, including direct costs, indirect costs, and accrued interest incurred by the United States to perform or support response actions at the Site. Response costs include but are not limited to the costs of overseeing the Work,

such as the costs of reviewing or developing plans, reports and other items pursuant to this Order and costs associated with verifying the Work.

q. "Statement of Work" or "SOW" shall mean the statement of work for performance of the Removal Action at the Site, as set forth in Appendix A to this Order.

The SOW is incorporated into this Order and is an enforceable part of this Order.

r. "Section" shall mean a portion of this Order identified by a Roman numeral and includes one or more paragraphs.

s. "Site" shall mean the San Mateo Mine Site located on the Cibola National Forest.

The Site is located in Cibola County about 15 miles northeast of Grants, New Mexico.

The Site is located approximately 5.5 miles west of the town of San Mateo. The legal description is the Northeast (NE) 1/4, Section 30, Southeast (SE) 1/4 of the Southeast (SE) 1/4 of Section 19, and the Federal portion of the West (W) 1/2 of the Northwest (NW) 1/4 of Section 29, Township 13 North, Range 8 West, of the New Mexico Principle Meridian. The Site includes lands under the jurisdiction, custody, and control of the Forest Service. A map showing the general location of the Site is included in the SOW attached as Appendix A.

t. "UNC" shall mean Respondent United Nuclear Corp., a Delaware corporation.

u. "United States" shall mean the United States of America.

v. "USDA" shall mean the United States Department of Agriculture and any successor departments or agencies of the United States.

w. "WEDC" shall mean the Western Energy Development Corp., a Nevada corporation.

- x. "Work" shall mean all activities Respondents are required to perform under this Order.

IV. FINDINGS OF FACT

7. The unpatented mining claims at the San Mateo Mine Site ("the Site") were owned and operated by Rare Metals Corp., (a predecessor company to El Paso) from 1955 to 1962. Rare Metals Corporation began mine development at the San Mateo Mine with the construction of the mine shaft, beginning in 1957. The fourteen hundred foot deep shaft onsite was completed in 1959, and the first ore was shipped offsite for processing that same year. Rare Metals Corporation merged into El Paso in 1962.
8. Uranium ore was mined onsite from a deposit in the Brushy Basin Sandstone approximately a thousand feet below the surface. When mining operations were underway, the Site included typical work buildings, a deep shaft, a mine waste dump, and settling ponds. The shaft included a pump to dewater the workings. When ore was brought to the surface, it was unloaded and measured into trucks, which transported the ore to a uranium processing mill located offsite. Waste rock was disposed of onsite in a series of terraces called the Main Waste Rock Pile. The North Pad, consisting of material similar to the Main Waste Rock Pile, was constructed on a flat area northeast of the Main Waste Rock Pile.
9. From 1962 until 1964, El Paso and El Paso Energy, another company which later merged into El Paso, mined the Site.
10. In 1964, UNC bought the unpatented mining claims at the Site from El Paso. UNC mined the Site from 1964 to 1971. The San Mateo Mine produced almost 900,000 tons

of ore over its operating lifetime. Between 1971 and 1981, UNC conducted minor exploration work and claim assessment work onsite.

11. In 1981, UNC sold the unpatented mining claims onsite to Homestake. In 1984, Homestake notified the Forest Service of its intent to abandon all claims and cease all operations, but it continued to perform assessment work and maintained the claims onsite through the 1988 assessment year.
12. In 2004, WEDC acquired a number of mining claims in the area of the Site, including some claims onsite, and it currently holds those claims.
13. At present, all buildings and surface facilities have been removed and only small remnants of the former surface structures remain. The main shaft and any emergency or air shafts associated with the mine have been sealed.
14. The Main Waste Rock Pile, North Pad, Sheet Wash Area and several settling ponds remain at the Site. The Main Waste Rock Pile contains approximately 160,000 cubic yards of uncovered and uncontrolled mine waste. The North Pad contains approximately 13,000 cubic yards of contaminated material. The Sheet Wash Area contains approximately 7,000 cubic yards of contaminated material. Surface soil and drainages surrounding the mining disturbance are contaminated by wind-borne dust and sediment transported by runoff.
15. The mine waste onsite contains radium 226 & 228, thorium 228, 230 & 232, uranium 234, 235 and 238., and these contaminants are being released from the Site. The primary exposure pathway at the Site is direct exposure to waste rock, pad material, and surface soils and sediments contaminated with radionuclides. Previous investigations and the EE/CA, September, 2010, determined that the risk to humans has increased due to past

uranium mining activities. Unrestricted land use exposes humans to radionuclides in the uncovered and unlined Main Waste Rock Pile and North Pad areas, and in and around the settling ponds by ingestion, inhalation, and dermal contact. There are elevated levels of radionuclides far above cleanup standards in several distinct areas of the Site, including samples from drainage pathways, waste rock, the settling pond, and the North Pad.

Surface drainage through the uncovered and uncontrolled Main Waste Rock Pile and the North Pad which contain uranium, thorium, and radium, carry contaminated soil to San Mateo Creek. The exposed surface of the Main Waste Rock Pile and the North Pad areas are also vulnerable to wind erosion, which causes additional off site migration of radionuclide contaminants in windborne dust emissions from the Site.

16. On April 18, 2011, the Regional Forester for the Southwestern Region approved a Removal Action Approval Memorandum selecting the Removal Action for the Site. The Removal Action provides a comprehensive cleanup of surface contamination onsite. As set forth more particularly in the SOW, construction activities associated with the Removal Action include excavation and consolidation of waste rock onto the Main Waste Rock Pile footprint, and capping with an Evapotranspiration (ET) Cover. The evapotranspiration cover will be engineered, designed, and constructed to provide superior protection for a long period of time. The ET cover stores and releases infiltrated precipitation such that there is no net flux of water through the soil layer. Other construction activities include re-vegetation of approximately 35 acres within areas in and around the Main Waste Rock Pile; installation of diversion channels up-gradient of the consolidation cell to control surface water; runoff protection on the ET cover; and installation of a 8-foot high chain link fence to enclose approximately 17 acres. The

Removal Action will minimize or eliminate the release of waste material contaminated with radionuclides from the Site into the San Mateo Creek watershed or onto nearby private land via the surface water pathway. The Removal Action will reduce potential risk of exposure to gamma radiation and direct contact, inhalation, or ingestion of radionuclides by either people or wildlife.

17. Pursuant to CERCLA and Executive Order 12580, the Forest Service is the lead agency for response actions at the Site.
18. The Forest Service has incurred, and continues to incur, response costs associated with the Site.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

19. The San Mateo Mine Site is a "facility" as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).
20. Respondents are "persons" as defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).
21. Respondents are "liable parties" as defined in Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and are subject to this Order under Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).
22. Radium 226 & 228, thorium 228, 230 & 232, uranium 234, 235 & 238, are "hazardous substances" as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).
23. These hazardous substances are being released from the Site.
24. The disposal and migration of hazardous substances from the Site are a "release" as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

25. The release of hazardous substances from the facility presents an imminent and substantial endangerment to the public health or welfare or the environment.

26. The contamination and endangerment at this Site constitute an indivisible injury. The actions required by this Order are necessary to protect the public health, welfare, and the environment.

VI. ORDER

27. This Order is issued to:

a. Respondent El Paso Natural Gas Company directly, and through predecessor companies, owned and operated the Site as a mine from approximately 1955 until 1964, when it sold the Site to UNC. During that time, hazardous substances, including radionuclides, were disposed of at the Site and released from the Site.

b. Respondent United Nuclear Corporation owned and operated the Site from approximately 1964 until 1981. During that time, hazardous substances, including radionuclides, were disposed of at the Site and released from the Site.

c. Respondent Homestake Mining Co. of California owned and operated the Site from approximately 1981 until 1989. During that time, hazardous substances, including radionuclides, were released from the Site.

d. Respondent Western Energy Development Corporation has owned and operated the Site from approximately 2004 until the present. During that time, hazardous substances, including radionuclides, were released from the Site.

28. Based on the foregoing, Respondents are hereby ordered to comply with the provisions of this Order, including but not limited to all appendices to this Order, all documents

incorporated by reference into this Order, and all schedules and deadlines in this Order, attached to this Order, or incorporated by reference into this Order.

VII. NOTICE OF INTENT TO COMPLY

29. Respondents shall each notify the Forest Service in writing within seven (7) working days after the Effective Date of this Order, as specified in Section XXVI, of Respondents' irrevocable intent to comply with this Order. Failure of a Respondent to provide such notification within this time period shall be a violation of this Order by that Respondent. Respondents' written notice shall describe, using facts that exist on or prior to the Effective date of this Order, any "sufficient cause" defenses asserted by Respondents under Sections 106(b) and 107(c)(3) of CERCLA. The absence of a response by the Forest Service to a notice required by this Paragraph shall not be deemed to be acceptance of Respondents' assertions.

VIII. FOREST SERVICE ON-SCENE COORDINATOR

30. All communications, whether written or oral, from Respondents to the Forest Service shall be directed to the Forest Service's On-Scene Coordinator. Respondents shall submit to the Forest Service, three copies of all documents, including plans, reports, and other correspondence, which are developed pursuant to this Order, and shall send these documents by certified mail, return receipt requested, or overnight mail.

The Forest Service's On-Scene Coordinator is:

Steven John McDonald
New Mexico Statewide On-Scene Coordinator
Southwestern Regional Office
333 Broadway Blvd.
Albuquerque, New Mexico 87102

Office Phone (505) 842-3838
Cell Phone (505) 264-9218
Fax (505) 842-3150
Email: smcdonald@fs.fed.us

31. Two copies of all documents shall be sent to the On-Scene Coordinator, and one copy shall be sent to:

Maria A. McGaha, P.E.
Regional Environmental Engineer
Southwestern Region
505-842-3837 (office)
505-301-1262 (cell)
mmcgaha@fs.fed.us

32. The Forest Service has the unreviewable right to change its On-Scene Coordinator. If the Forest Service changes its On-Scene Coordinator, the Forest Service will inform Respondents in writing of the name, address, and telephone number of the new On-Scene Coordinator.
33. The Forest Service's On-Scene Coordinator shall have the authority lawfully vested in an On-Scene Coordinator (OSC) by the NCP, 40 C.F.R. Part 300. The Forest Service's On-Scene Coordinator shall have authority, consistent with the NCP, to halt any work required by this Order, and to take any necessary response action when s/he determines that conditions at the Site constitute an emergency situation or may present an immediate threat to public health or welfare or the environment due to the release or threatened release of waste material and/or hazardous substances.

IX. WORK TO BE PERFORMED

34. Respondents shall cooperate with the Forest Service in providing information regarding the Work to the public. As requested by the Forest Service, Respondents shall participate in the preparation of such information for distribution to the public and in public

meetings that may be held or sponsored by the Forest Service to explain activities at or relating to the Site.

35. All aspects of the Work to be performed by Respondents pursuant to this Order shall be under the direction and supervision of a qualified Project Manager the selection of which shall be subject to approval by the Forest Service. Within ten (10) days after the Effective Date of this Order, Respondents shall notify the Forest Service in writing of the name and qualifications of the Project Manager, including primary support entities and staff, proposed to be used in carrying out work under this Order. Respondents' Project Manager shall be responsible for overseeing Respondents' implementation of this Order. Respondents shall have the right to change its Project Manager, subject to the Forest Service's right to disapprove. If at any time Respondents propose to use a different Project Manager, Respondents shall notify the Forest Service, in writing, and shall obtain approval from the Forest Service before the new Project Manager performs any Work under this Order.

36. The Forest Service will review Respondents' selection of a Project Manager according to the terms of this Paragraph. If the Forest Service disapproves of the selection of the Project Manager, Respondents shall submit to the Forest Service within ten (10) days after receipt of the Forest Service's disapproval of the Project Manager previously selected, a list of Project Managers, including primary support entities and staff, that would be acceptable to Respondents. The Forest Service will thereafter provide written notice to Respondents of the names of the Project Managers that are acceptable to the Forest Service. Respondents may then select any approved Project Manager from that list and shall notify the Forest Service of the name of the Project Manager selected within

seven (7) days of the Forest Service's designation of approved Project Managers. The Forest Service retains the right to disapprove of Respondents' designated Project Manager at any time during Respondents' performance of work. If the Forest Service disapproves of the designated Project Manager, Respondents shall retain a different Project Manager and shall notify the Forest Service of that person's name, address, telephone number and qualifications within five (5) days following the Forest Service's disapproval. Receipt by Respondents' Project Manager of any notice or communication from the Forest Service relating to this Order shall constitute receipt by Respondents.

37. Within ninety (90) calendar days after the Effective Date of the Order, Respondents shall submit a Work Plan ("Work Plan") to the Forest Service for review and approval. The Work Plan is identified as Task 1 of the SOW. The Work Plan shall consist of the overall strategy for performing the design, construction, operation, maintenance and monitoring for the Removal Action. The Work Plan shall outline the specific tasks required to implement the Removal Action, including a description of the technical approach, personnel requirements, plans, specifications, permit requirements, submittals, and deliverables. The Work Plan shall also include a schedule, in real time, for conducting all activities associated with the Removal Action.

38. Upon written approval by the Forest Service, the Work Plan is incorporated into this Order as a requirement of this Order and shall be an enforceable part of this Order.

39. Unless otherwise directed by the Forest Service, Respondents shall not commence Task 2 of the SOW prior to written approval of the Work Plan.

40. If Respondents seek to retain a construction contractor(s) to assist in the performance of the Removal Action, then Respondents shall submit a copy of the contractor solicitation

documents to the Forest Service not later than five (5) days after publishing the solicitation documents.

41. Within twenty (20) days after the Forest Service approves the Final Design, Respondents shall notify the Forest Service in writing of the name, title, and qualifications of any construction contractor(s) proposed to be used in carrying out work under this Order. If the Forest Service disapproves of the selection of the construction contractor(s), Respondents shall submit to the Forest Service within ten (10) days after receipt of the Forest Service's disapproval of the construction contractor(s) previously selected, a list of construction contractors that would be acceptable to Respondents. The Forest Service will thereafter provide written notice to Respondents of the names of the construction contractors that are acceptable to the Forest Service. Respondents may then select any approved construction contractor from that list and shall notify the Forest Service of the name of the construction contractor(s) selected within seven (7) days of the Forest Service's designation of approved construction contractors. The Forest Service retains the right to disapprove Respondents' designated construction contractors(s) at any time during Respondents' performance of work. If the Forest Service disapproves of the designated construction contractor(s), Respondents shall retain a different construction contractor(s) and shall notify the Forest Service of that person's name, address, telephone number and qualifications within five (5) days following the Forest Service's disapproval. If at any time Respondents propose to change the construction contractor(s), Respondents shall notify the Forest Service and shall obtain approval from the Forest Service as provided in this Paragraph, before the new construction contractor(s) performs any work under this Order.

42. The Work performed by Respondents pursuant to this Order shall, at a minimum, achieve the performance standards specified in the Action Memo and in the SOW.

43. Notwithstanding any action by the Forest Service, Respondents remain fully responsible for achievement of the performance standards in the Action Memo and SOW. Nothing in this Order, or in the Forest Service's approval of the SOW, Work Plan, or approval of any other submission, shall be deemed to constitute a warranty or representation of any kind by the Forest Service that full performance of the Removal Action will achieve the performance standards set forth in the Action Memo and in the SOW. Respondents' compliance with such approved documents does not foreclose the Forest Service from seeking additional work to achieve the applicable performance standards.

44. Respondents shall, prior to any off-Site shipment of hazardous substances from the Site to an out-of-state waste management facility, provide written notification to the appropriate state environmental official in the receiving state and to the Forest Service's On-Scene Coordinator of such shipment of hazardous substances.

45. The notification shall be in writing, and shall include the following information, where available: (1) the name and location of the facility to which the hazardous substances are to be shipped; (2) the type and quantity of the hazardous substances to be shipped; (3) the expected schedule for the shipment of the hazardous substances; and (4) the method of transportation. Respondents shall notify the receiving state of major changes in the shipment plan, such as a decision to ship the hazardous substances to another facility within the same state, or to a facility in another state.

46. The identity of the receiving facility and state will be determined by Respondents following the award of the contract for Removal Action construction. Respondents shall

provide all relevant information, including information under the categories noted in the above Paragraph, on the off-Site shipments as soon as practicable after the award of the contract and before the hazardous substances are actually shipped. Before shipping any hazardous substances, pollutants, or contaminants from the Site to an off-Site location, Respondents shall provide the Forest Service with certification that the proposed receiving facility is operating in compliance with the requirements of CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondents shall only send hazardous substances, pollutants, or contaminants from the Site to an off-Site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence.

47. Within thirty (30) days after Respondents conclude that the Removal Action has (i) been fully performed, (ii) achieved the cleanup goals and objectives set forth in the Action Memo, (iii) is operational and functional, and (iv) is functioning properly and is performing as designed, Respondents shall so notify the Forest Service and shall schedule and conduct a pre-certification inspection to be attended by Respondents and the Forest Service. The pre-certification inspection shall be followed by a written report submitted within thirty (30) days of the inspection by a registered professional engineer and Respondent's Project Manager certifying that the Removal Action has been completed in full satisfaction of the requirements of this Order. If, after completion of the pre-certification inspection and receipt and review of the written report, the Forest Service determines that the Removal Action or any portion thereof has not been completed in accordance with this Order, the Forest Service shall notify Respondents in writing of the activities that must be undertaken to complete the Removal Action and shall set forth in

the notice a schedule for performance of such activities. Respondents shall perform all activities described in the notice in accordance with the specifications and schedules established therein. If the Forest Service concludes, following the initial or any subsequent certification of completion by Respondents that the Removal Action has been fully performed in accordance with this Order, the Forest Service may notify Respondents that the Removal Action has been fully performed. The Forest Service's notification shall be based on present knowledge and Respondents' certification to the Forest Service, and shall not limit the Forest Service's right to perform periodic reviews pursuant to Section 121(c) of CERCLA, 42 U.S.C. § 9621(c), or to take or require any action that in the judgment of the Forest Service is appropriate at the Site, in accordance with 42 U.S.C. §§ 9604, 9606, or 9607. Upon notification from the Forest Service that the Removal Action has been fully performed and is operational and functional, Respondents shall initiate O&M for the Removal Action. Respondents shall conduct O&M for the Removal Action for a limited period of five years from the date of the Forest Service's notification to Respondents that the Removal Action has been performed and is operational and functional.

48. Within thirty (30) days after Respondents conclude that all phases of the Work have been fully performed, that the Performance Standards have been attained, and that all O&M activities required under this Order have been completed and performed, Respondents shall submit to the Forest Service a written report by a registered professional engineer certifying that the Work has been completed in full satisfaction of the requirements of this Order. The Forest Service shall require such additional activities as may be necessary to complete the Work or the Forest Service may, based upon present

knowledge and Respondents' certification to the Forest Service, issue written notification to Respondents that the Work has been completed, as appropriate, in accordance with the procedures set forth herein for Respondents' certification of completion of the Removal Action. The Forest Service's notification shall not limit the Forest Service's right to perform periodic reviews pursuant to Section 121(c) of CERCLA, 42 U.S.C. § 9621(c), or to take or require any action that in the judgment of the Forest Service is appropriate at the Site, in accordance with 42 U.S.C. §§ 9604, 9606, or 9607.

X. QUALITY ASSURANCE, SAMPLING AND DATA ANALYSIS

49. Respondents shall use the quality assurance, quality control, and chain of custody procedures described in the "EPA Requirements for Quality Assurance Project Plans (QA/R-5)" (EPA/240/B-01/003, March 2001 or most recent version) and "Guidance for Quality Assurance Project Plans (QA/G-5)" (EPA/600/R-02/009, December 2002 or subsequently issued guidance), and any amendments to these documents, while conducting all sample collection and analysis activities required herein by any plan. To provide quality assurance and maintain quality control, Respondents shall:
- a. Use only laboratories that have a documented quality system that complies with ANSI/ASQC E4-1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs," (American National Standard, January 5, 1995) and "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01/002, March 2001) or equivalent documentation as determined by EPA. The Forest Service may consider laboratories accredited under the National Environmental Laboratory Accreditation Program (NELAP) to meet the quality system requirements.

b. Ensure that the laboratory used by Respondents for analyses, performs according to a method or methods deemed satisfactory to the Forest Service and submits all protocols to be used for analyses to the Forest Service at least thirty (30) days before beginning analysis.

c. Ensure that the Forest Service personnel and the Forest Service's authorized representatives are allowed access to the laboratory and personnel utilized by Respondents for analyses.

50. Respondents shall notify the Forest Service not less than fourteen (14) days in advance of any sample collection activity. At the request of the Forest Service, Respondents shall allow split or duplicate samples to be taken by the Forest Service or its authorized representatives, of any samples collected by Respondents with regard to the Site or pursuant to the implementation of this Order. In addition, the Forest Service shall have the right to take any additional samples that the Forest Service deems necessary.

XI. PROGRESS REPORTS

51. In addition to the other deliverables set forth in this Order, Respondents shall provide monthly progress reports to the Forest Service with respect to actions and activities undertaken pursuant to this Order. The monthly progress reports shall be submitted on or before the 15th day of each month following the Effective Date of this Order.

Respondents' obligation to submit monthly progress reports shall continue until the Forest Service gives Respondents written notice that the Work has been completed.

52. Monthly progress reports shall be prepared as outlined in the SOW.

XII. THE FOREST SERVICE REVIEW OF SUBMISSIONS

53. After review of any deliverable, plan, report or other item which is required to be submitted for review and approval pursuant to this Order, the Forest Service may: (a) approve the submission; (b) approve the submission with modifications; (c) disapprove the submission and direct Respondents to re-submit the document after incorporating the Forest Service's comments; or (d) disapprove the submission and assume responsibility for performing all or any part of the response action. As used in this Order, the terms "approval by the Forest Service," "the Forest Service approval," or a similar term means the action described in paragraphs (a) or (b) of this Paragraph.
54. In the event of approval or approval with modifications by the Forest Service, Respondents shall proceed to take any action required by the plan, report, or other item, as approved or modified by the Forest Service.
55. Upon receipt of a notice of disapproval or a request for a modification, Respondents shall, within twenty-one (21) days or such longer time as specified by the Forest Service in its notice of disapproval or request for modification, correct the deficiencies and resubmit the plan, report, or other item for approval. Notwithstanding the notice of disapproval, or approval with modifications, Respondents shall proceed, at the direction of the Forest Service, to take any action required by any non-deficient portion of the submission.
56. If any submission is not approved by the Forest Service, Respondents shall be deemed to be in violation of this Order.

XIII. ADDITIONAL RESPONSE ACTIONS AND FAILURE TO ATTAIN PERFORMANCE STANDARDS

57. The Forest Service may determine that in addition to the Work identified in this Order and attachments to this Order, additional response activities may be necessary to protect human health and the environment. If the Forest Service determines that additional response activities are necessary, the Forest Service may require that Respondents submit a work plan for additional response activities. The Forest Service may also require that Respondents modify any plan, design, or other deliverable required by this Order, including any approved modifications.
58. Not later than thirty (30) days after receiving the Forest Service's notice that additional response activities are required pursuant to this Section, Respondents shall submit a work plan for the response activities to the Forest Service for review and approval. Upon approval by the Forest Service, the work plan is incorporated into this Order as a requirement of this Order and shall be an enforceable part of this Order. Upon approval of the work plan by the Forest Service, Respondents shall implement the work plan according to the standards, specifications, and schedule in the approved work plan. Respondents shall notify the Forest Service of their intent to perform such additional response activities within seven (7) days after receipt of the Forest Service's request for additional response activities.
59. In the event that the Forest Service determines that additional response activities are necessary to meet applicable performance standards in the SOW, the Forest Service may notify Respondents that additional response actions are necessary.
60. Unless otherwise stated by the Forest Service, within thirty (30) days of receipt of notice from the Forest Service that additional response activities are necessary to meet any applicable performance standards, Respondents shall submit for approval by the Forest

Service a work plan for the additional response activities. The plan shall conform to the applicable requirements of Sections IX, X, and XVI of this Order. Upon the Forest Service's approval of the plan pursuant to Section XII, Respondents shall implement the plan for additional response activities in accordance with the provisions and schedule contained therein.

XIV. THE FOREST SERVICE PERIODIC REVIEW

61. Under Section 121(c) of CERCLA, 42 U.S.C. § 9621(c), and any applicable regulations, the Forest Service may review the Site to assure that the Work performed pursuant to this Order adequately protects human health and the environment. Until such time as the Forest Service certifies completion of the Work, Respondents shall conduct the requisite studies, investigations, or other response actions as determined necessary by the Forest Service in order to conduct the review under Section 121(c) of CERCLA. As a result of any review performed under this Paragraph, Respondents may be required to perform additional Work or to modify Work previously performed.

XV. ENDANGERMENT AND EMERGENCY RESPONSE

62. If any incidents, or change in Site conditions, during the actions conducted pursuant to this Order causes or threatens to cause an additional release of hazardous substances from the Site or an endangerment to the public health, welfare, or the environment, Respondents shall immediately take all appropriate action. Respondents shall take these actions in accordance with all applicable provisions of this Order, including, but not limited to the Health and Safety Plan, in order to prevent, abate or minimize such release or endangerment caused or threatened by the release. Respondents shall also

immediately notify the Forest Service's On-Scene Coordinator or, if the On-Scene Coordinator is unavailable, Respondents shall notify the Forest Service Regional Environmental Engineer, Southwestern Region, of the incident or Site conditions. If Respondents fail to take action, then the Forest Service may respond to the release or endangerment and reserves the right to pursue cost recovery.

63. In the event of any release of a hazardous substance above a reportable quantity, Respondents shall immediately notify the Forest Service's On-Scene Coordinator and the National Response Center. Respondents shall submit a written report to the Forest Service within seven (7) days after such release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, not in lieu of, reporting under CERCLA Section 103(c) and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004.

64. Nothing in the preceding Paragraph shall be deemed to limit any authority of the Forest Service to take, direct, or order all appropriate action to protect human health and the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances on, at, or from the Site.

XVI. COMPLIANCE WITH APPLICABLE LAWS

65. All activities by Respondents pursuant to this Order shall be performed in accordance with the requirements of all applicable Federal, state, and local laws and regulations. The Forest Service has determined that the activities contemplated by this Order are consistent with the NCP.

66. Except as provided in Section 121(e) of CERCLA and the NCP, no permit shall be required for any portion of the Work conducted entirely on-Site. Where any portion of the Work requires a Federal, state, or local permit or approval, Respondents shall submit timely applications and take all other actions necessary to obtain and to comply with all such permits or approvals.

67. This Order is not, and shall not be construed to be a permit issued pursuant to any Federal, state, or local statute or regulation.

68. All materials removed from the Site shall be disposed of or treated at a facility approved by the Forest Service's On-Scene Coordinator and in accordance with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), EPA's Off-Site Rule, 40 C.F.R. § 300.440, and with all other applicable Federal, state, and local requirements.

69. All draft and final work plans and reports required for submittal under this Order shall be stamped by a Registered Professional Engineer or Geologist. All draft and final work plans, reports or other items required for submittal under this Order shall include the following certification signed by a person who supervised or directed the preparation of that report:

“Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

XVII. ACCESS TO PROPERTY NOT OWNED BY THE UNITED STATES

70. If any property subject to or affected by the cleanup is owned, in whole or in part, by a party or parties other than the United States, Respondents will obtain, or use its best efforts to obtain, Site access agreements from the present owner(s) within thirty (30) days after the Effective Date of this Order, or as otherwise specified in writing by the On-Scene Coordinator. Such agreements shall provide access for the Forest Service, its contractors and oversight officials, the State and its contractors, and Respondents or Respondents' authorized representatives and contractors, and such agreements shall specify that Respondents are not the Forest Service's representative with respect to liability associated with Site activities. Respondents shall save and hold harmless the United States and its officials, agents, employees, contractors, subcontractors, or representatives for or from any and all claims or causes of action or other costs incurred by the United States including but not limited to attorneys fees and other expenses of litigation and settlement arising from or on account of acts or omissions of Respondents, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Order, including any claims arising from any designation of Respondents as the Forest Service's authorized representatives under Section 104(e) of CERCLA, 42 U.S.C. § 9604(e). Copies of such agreements shall be provided to the Forest Service prior to Respondents' initiation of field activities. Respondents' best efforts shall include providing reasonable compensation to any off-Site property owner. If access agreements are not obtained within the time referenced above, Respondents shall immediately notify the Forest Service of its failure to obtain access. Respondents shall describe in writing their effort(s) to obtain access. The Forest Service may then assist Respondents in

gaining access, to the extent necessary to effectuate the removal actions described herein, using such means as the Forest Service deems appropriate. The Forest Service reserves the right to seek reimbursement from Respondents for all costs and attorney's fees incurred by the United States in obtaining access for Respondents.

XVIII. RECORD PRESERVATION, RETENTION, AND AVAILABILITY

71. Respondents shall provide to the Forest Service upon request, copies of all documents and information within their possession and/or control or that of their contractors or agents relating to activities at the Site or to the implementation of this Order, including but not limited to sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. Respondents shall also make available to the Forest Service for purposes of investigation, information gathering, or testimony, its employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.
72. Until ten (10) years after the Forest Service provides written notice to Respondents that the Work has been completed, Respondents shall preserve and retain all records and documents in its possession or control, including the documents in the possession or control of its contractors and agents, on and after the effective date of this Order that relate in any manner to the Site. At the conclusion of this document retention period, Respondents shall notify the United States at least ninety (90) calendar days prior to the destruction of any such records or documents, and upon request by the Forest Service, Respondents shall deliver any such records or documents to the Forest Service.

73. Within thirty (30) days after the Effective Date of this Order, Respondents shall submit a written certification to the Forest Service's On-Scene Coordinator that they have not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information relating to their potential liability with regard to the Site since notification of potential liability by the United States or the State or the filing of suit against it regarding the Site. Respondents shall not dispose of any such documents without prior approval by the Forest Service. Respondents shall, upon the Forest Service's request and at no cost to the Forest Service, deliver the documents or copies of the documents to the Forest Service.

74. Respondents may assert a business confidentiality claim pursuant to the procedures set forth in 40 C.F.R. § 2.203(b) with respect to part or all of any information submitted to the Forest Service pursuant to this Order, provided such claim is allowed by Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7). Analytical and other data specified in Section 104(e)(7)(F) of CERCLA shall not be claimed as confidential by Respondents. The Forest Service shall only disclose information covered by a business confidentiality claim to the extent permitted by, and by means of the procedures set forth at 7 C.F.R. § 1.12. If no such claim accompanies the information when it is received by the Forest Service, it may make it available to the public without further notice to Respondents.

75. Respondents shall maintain a running log of privileged documents on a document-by-document basis, containing the date, author(s), addressee(s), subject, the privilege or grounds claimed (e.g., attorney work product, attorney-client), and the factual basis for assertion of the privilege. Respondents shall keep the "privilege log" on file and available for inspection. The Forest Service may at any time challenge claims of

XX. INSURANCE

78. At least seven (7) days prior to commencing any work at the Site pursuant to this Order, Respondents shall secure, and shall maintain for the duration of this Order, comprehensive general liability insurance and automobile insurance with limits of one million dollars, combined single limit. Within the same time period, Respondents shall provide the Forest Service with certificates of such insurance and a copy of each insurance policy. If the Respondents demonstrate by evidence satisfactory to the Forest Service that Respondents contractors and subcontractors have adequate insurance coverage or have indemnification for liabilities for injuries or damages to persons or property which may result from the activities to be conducted by or on behalf of Respondents pursuant to this Order, covering the same risks but in a lesser amount, then the Respondents need provide only that portion of the insurance described above which is not maintained by the contractor or subcontractor.

XXI. UNITED STATES NOT LIABLE

79. The United States, by issuance of this Order, assumes no liability for any injuries or damages to persons or property resulting from acts or omissions by Respondents, or their directors, officers, employees, agents, representatives, successors, assigns, contractors, or consultants in carrying out any action or activity pursuant to this Order. Neither the Forest Service nor the United States may be deemed to be a party to any contract entered into by Respondents or their directors, officers, employees, agents, successors, assigns, contractors, or consultants in carrying out any action or activity pursuant to this Order.

XXII. ENFORCEMENT AND RESERVATIONS

80. The Forest Service reserves the right to bring an action against Respondents under Section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of any response costs incurred by the United States related to this Order or the Site and not reimbursed by Respondents. This reservation shall include, but not be limited to, past costs, direct costs, indirect costs, the costs of oversight, the costs of compiling the cost documentation to support oversight cost demand, as well as accrued interest as provided in Section 107(a) of CERCLA.
81. Notwithstanding any other provision of this Order, at any time during the response action, the Forest Service may perform its own studies, complete the response action (or any portion of the response action) as provided in CERCLA and the NCP, and seek reimbursement from Respondents for its costs, or seek any other appropriate relief.
82. Nothing in this Order shall preclude the Forest Service from taking any additional enforcement actions, including modification of this Order or issuance of additional Orders, and/or additional removal or remedial actions as the Forest Service may deem necessary, or from requiring Respondents in the future to perform additional activities pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a), or any other applicable law. Respondents shall be liable under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), for the costs of any such additional actions.
83. Notwithstanding any provision of this Order, the Forest Service hereby retains all of its information gathering, inspection and enforcement authorities and rights under CERCLA, and any other applicable statutes or regulations.
84. Violation of any provision of this Order may subject Respondents to civil penalties of not more than thirty-seven thousand five hundred dollars (\$37,500) per violation per day, as

provided in Section 106(b)(1) of CERCLA, 42 U.S.C. § 9606(b)(1). Should Respondents violate this Order or any portion hereof, the Forest Service may carry out the required actions unilaterally, pursuant to Section 104 of CERCLA, 42 U.S.C. § 9604, and/or may seek judicial enforcement of this Order pursuant to Section 106 of CERCLA, 42 U.S.C. § 9606.

85. Nothing in this Order shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person for any liability it may have arising out of or relating in any way to the Site.

XXIII. ADMINISTRATIVE RECORD

86. The Administrative Record supporting this Removal Action is available for review at the USDA Forest Service Southwestern Regional Office, located at:
- 333 Broadway SE
Albuquerque, NM 87102

XXIV. SEVERABILITY

87. If a court issues an order that invalidates any provision of this Order or finds that Respondents have sufficient cause not to comply with one or more provisions of this Order, Respondents shall remain bound to comply with all provisions of this Order not invalidated or determined to be subject to a sufficient cause defense by the court's order.

XXV. OPPORTUNITY TO CONFER

88. Within seven (7) working days after the date that Respondents are served, by facsimile, with a copy of this Order, Respondents may request, in writing, a conference with the

USDA. Any such conference shall be held within ten (10) working days after the date of such request, unless extended by agreement of the parties. At any conference held pursuant to the request, Respondents may appear in person or be represented by an attorney or other representative.

89. If a conference is held, Respondents may present any information, arguments or comments regarding this Order. Regardless of whether a conference is held, Respondents may submit any information, arguments or comments in writing to the Forest Service within fourteen (14) days following the conference, or within twenty-one (21) days following the effective date of this Order if no conference is requested. This conference is not an evidentiary hearing, does not constitute a proceeding to challenge this Order, and does not give Respondents a right to seek review of this Order. Requests for a conference, or any written submittal under this Paragraph, shall be directed to:

Michael R. Hope
Senior Counsel
USDA Office of the General Counsel
740 Simms St., Suite 309
Golden, CO 80401
303-275-5545
fax-303-275-5557
email-michael.hope@usda.gov

XXVI. EFFECTIVE DATE

90. This Order shall be effective ten (10) working days after the date that Respondents are served, by facsimile, with a copy of this Order, unless a conference is requested as provided herein. If a conference is requested, this Order shall be effective on the second (2nd) working day following the day of the conference, unless modified, in writing, by the Forest Service.

IT IS SO ORDERED

By: _____

Date: _____

THOMAS L. TIDWELL
Chief
Forest Service

By: _____

Date: _____

Lisa M. Wilusz
Director
USDA Office of Procurement
and Property Management

Concurrence:

Ramona E. Romero
General Counsel

Date: _____

APPENDIX A STATEMENT OF WORK REMOVAL ACTION SAN MATEO URANIUM MINE

1.0 PURPOSE

The purpose of this Statement of Work (SOW) is to describe the Work activities associated with the Removal Action at the San Mateo Uranium Mine (Site). These activities consist of the design, construction, monitoring, and operation and maintenance of the Removal Action. The Removal Action shall be consistent with the United States Department of Agriculture, Forest Service (Forest Service) Action Memorandum and the Unilateral Administrative Order for Removal Action (UAO or Order). The Respondents shall comply with applicable regulatory requirements pertaining to the Removal Action.

The mine features at the Site are Main Waste Rock Pile, North Pad, Sheet Wash Area, South Sand Pile, and several settling ponds. The primary source of contamination consists of the exposed nature of 180,000 cubic yards of Main Waste Rock Pile, North Pad material, South Sand Pile, and Sheet Wash Area containing radium-226, radium-228, thorium-228, thorium-230, thorium-232, uranium-234, uranium-235, and uranium-238, the contaminants of concern. Wind and water erosion of these uncovered and uncontrolled waste materials has lead to migration of contaminants into air, soil, and sediment. It has resulted in potential inhalation, ingestion, and dermal contact exposure pathways. Some of the waste materials have migrated onto adjacent private lands.

The Forest Service shall provide oversight of the Respondents activities throughout the Removal Action. The Respondents shall support the Forest Service initiatives and conduct activities related to the implementation of the Removal Action.

2.0 REMOVAL ACTION PERFORMANCE STANDARDS AND SPECIFICATIONS

Unless otherwise specified, the Respondents shall conduct all Work described in this SOW. Work shall be completed upon written acceptance from the Forest Service. The Respondents shall prepare the performance standards and specifications of the Removal Action as described herein. Performance standards and specifications shall include cleanup standards, standards of control, quality criteria, and other requirements, criteria or limitations as established in the Action Memorandum, this SOW and the UAO. A vicinity map is included as Figure 1. A site boundary map is included as Figure 2. A mine features map is included as Figure 3.

2.1 Cleanup Performance Standard

The cleanup performance standards shall be consistent with Multi-Agency Radiation Survey and Site investigation Manual (MARSSIM) and the Uranium Mill Tailings Radiation Control Act regulations at 40 CFR192.12. The concentration of radium-226 in land averaged over the first 15 cm of soil below

ground surface shall not exceed the background level by more than 5 picocuries per gram of radium-226.

2.2 Evapotranspiration Cover Performance Standards

Longevity of the Cover-The cover shall have a minimum expected life of 200 years.

Water Infiltration-The cover must protect mine wastes and reduce leachate development by minimizing infiltration into the mine waste. Infiltration from the cover into the mine waste shall not exceed 3mm/year for the wettest year on record.

Erosion- The cover shall have a gravel admixture designed to minimize erosion. As a minimum, the cover system shall be designed so that the calculated sheet erosion rate does not exceed 2 tons/acre/year. Erosion effects due to both wind and water shall be taken into account. The top gravel/soil admixture depth, soil to gravel ratio, and size of gravel will be determined in the design process.

Revegetation- Revegetation shall emulate the structure, function, diversity and dynamics of native plant communities. Ground cover shall be a minimum of 80% of the natural analog at the end of the first five year maintenance period.

2.3 Fence Performance Standards

The fence shall be a standard commercial grade chain link mesh designed to exclude large animals such as cattle, deer, and elk out of the repository area. The fence shall be 8 feet in height and shall totally enclose the area of the repository. The fence shall have a minimum of one commercial grade chain link gate designed to allow the entry of vehicles and equipment.

3.0 TASK DESCRIPTION

The Removal Action shall consist of six (6) principal tasks described below. Tasks and deliverables shall be completed and submitted in accordance with the schedules established in the UAO and in the Work Plan approved by Forest Service. The Forest Service shall review all submittals and provide comments/input within fourteen (14) days of receipt. The current/revised date shall be displayed on the coversheet of submittals and/or re-submittals. All work related to this SOW shall be performed by the Respondents consistent with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) as amended, 42 USC 9601, and other applicable federal and state rules and regulations.

Task Summary

3.1 Task I: Work Plan

3.1.1 Site Access

3.1.2 Pre-Design Studies Plan

3.2 Task II: Pre Design Studies

3.3 Task III: Removal Design

- 3.3.1 General Requirements for Plans and Specifications
- 3.3.2 Design Phases
- 3.3.3 Cost Estimate for Removal Action
- 3.3.4 Removal Action Construction Implementation Plan
- 3.3.5 Community Involvement Support
- 3.4 Task IV: Removal Action Construction
 - 3.4.1 Preconstruction Inspection and Conference
 - 3.4.2 Design Changes during Construction
 - 3.4.3 Removal Action Construction Completion and Acceptance
- 3.5 Task V: Operation and Maintenance
 - 3.5.1 O&M Plan
 - 3.5.2 Acceptance Inspection
- 3.6 Task VI: Reporting Requirements
 - 3.6.1 Monthly Progress Reports
 - 3.6.2 Annual O&M Progress Reports
 - 3.6.3 Summary of Reports and Submittals

3.1 TASK I: WORK PLAN

The Work Plan shall consist of the overall strategy for performing the design, construction, operation, maintenance and monitoring for the Removal Action. The Work Plan shall outline the specific tasks required to implement the Removal Action, including a description of the technical approach, personnel requirements, plans, specifications, permit requirements, submittals, and deliverables.

The personnel requirements include the responsibilities and authority of all organizations and key personnel involved with the development and implementation of the Removal Action. In addition, the personnel requirements shall include the qualifications of key personnel directing the Removal Action tasks, including contractor personnel if known.

The Work Plan shall include a schedule, in real time, for conducting all activities associated with the Removal Action. All activities shall be consistent with the overall goal of submitting to the Forest Service the Construction Completion Report no later than April 1, 2013.

The Work Plan shall include a rationale and methodology for determining the suitability of cover material. Suitable cover material shall, at minimum, meet Action Memorandum cleanup standards and have appropriate geotechnical characteristics to make an evapotranspiration cover that will store water and provide a suitable growing medium for plants. The Work Plan shall provide the evaluation of off-site sources in the likely event that the on-site material is not suitable or is of insufficient volume.

3.1.1 Site Access

The Site is situated on National Forest System Lands; however, the Site is accessed via private land. Agreements for access through private land shall be obtained from the private land owners.

Temporary site access agreements may be obtained to allow access for pre-design studies; however long-term site agreements shall be obtained prior to Removal Action Construction. Long-term site

access agreements shall extend for the duration of all removal activities and Forest Service oversight activities. The Work Plan shall describe the activities to satisfy these requirements.

3.1.2 Pre-Design Studies Plan

The Pre-Design Studies Plan is a component of the Work Plan. The Pre-Design Studies Plan shall outline the tasks associated with the pre-design studies. Information developed during pre-design studies is required to design and implement the Removal Action. At a minimum, the Pre-Design Studies Plan shall address the elements listed below in the pre-design studies.

- 1) Additional radiological surveys in the sheet wash area and investigate access road to delineate the area of contaminated soil to be removed;
- 2) Accurate determination of area background concentrations;
- 3) Additional radiological surveys and soil sample analysis for Ra-226 to correlate concentrations in soil to gamma survey results;
- 4) Evaluate candidate borrow sources for cover material;
- 5) Evaluate local vegetation analog on undisturbed ground near the site for purposes of establishing long term and low maintenance plants on the cover;
- 6) Identify leftover mining debris such as pipe and building remains that need to be disposed of to ensure site reclamation is successful; and
- 7) Identify archeological sites in areas where sampling or remediation work will be conducted.

The Pre-Design Studies Plan will identify and describe, in detail, activities to conduct these elements. The Pre-Design Studies Plan shall include sufficient sampling, testing, and analyses to develop quantitative performance, cost and design data for the Removal Action.

The Pre-Design Studies Plan shall be approved by the Forest Service prior to initiation of associated field activities or studies.

The Pre-Design Studies Plan shall include a Site Specific Sampling and Analysis Plan (SAP) and a Design Health and Safety Plan. Section 4.0 of this SOW describes key elements of these two plans.

Prior to development of the Pre-Design Studies Plan, the On-Scene Coordinator and the Project Manager will meet to discuss scope, objectives, quality assurance and quality control issues, resources, reporting, communication channels, schedule, and personnel roles and responsibilities involved in the Removal Action.

The pre-design studies will be conducted as described under Task II.

3.2 TASK II: PRE-DESIGN STUDIES

All key elements associated with the pre-design studies shall be coordinated with the On-Scene Coordinator. The objective of the pre-design studies is two-fold: (1) to define and delineate the extent of contamination at the site; and (2) evaluate and confirm the specifications associated with the proposed cover soils and revegetation.

The following further describes the key elements of the pre-design studies:

- 1) Additional radiological surveys shall include sampling and analysis in the (a) sheet wash area; and (b) access road areas. The objective of these surveys is to delineate the extent of the contamination in these two areas. During past mining activities, ore may have spilled on the ground from haul vehicles; therefore, access road areas may have some degree of contamination. These surveys shall delineate all areas within the site boundary that contain radionuclides above the cleanup performance standards.
- 2) Investigate and designate borrow sources for cover material including particle size analysis, saturated hydraulic conductivity, soil water characteristic curve, and shrink-swell, wet-dry characteristics. Samples shall be taken over the full range of depth of the borrow source proposed to be utilized as cover material. Document volume calculations and estimates, uniformity of soil, and evaluate whether blending of soils might be necessary.
- 3) Evaluate local vegetation analog on undisturbed ground near the site displaying similar soil properties aspect, and elevation. Document data regarding plant species, coverage, leaf area index, and root depth and density.
- 4) Identify and document past mining debris such as pipe and building remains that need to be disposed of and any other remediation to restore the mine site to pre-mining conditions.

Furnish all services, including required field work, materials, supplies, labor, equipment, supervision, and data interpretation. Sampling, testing, and analyses shall be performed to provide the technical data to prepare and support the removal design plans and specifications for the Removal Action.

Activities in the Pre-Design Studies Plan shall be completed. Thereafter, a Draft Pre-Design Studies Report shall be prepared and submitted for review and comment to the Forest Service. The Draft Pre-Design Studies Report shall be submitted prior to or concurrently with submittal of the Preliminary Design submittal in accordance with the schedule in the approved Work Plan.

The Draft Pre-Design Studies Report shall present investigation/testing data and results, the proposed approach for determining compliance with the cleanup performance standard consistent with Multi-Agency Radiation Survey and Site investigation Manual (MARSSIM), and other analysis, including a cost analysis, when appropriate.

The Final Pre-Design Studies Report shall be submitted to the Forest Service in accordance with schedule in the approved Work Plan.

3.3 TASK III: REMOVAL DESIGN

The Removal Design shall be prepared and submitted to the Forest Service in accordance with the schedule set forth in the approved Work Plan. The Removal Design shall include the construction plans, specifications, drawings, and supporting plans to implement the Removal Action at the Site as defined in the Sections 1.0 and 2.0 of this SOW, the Action Memorandum, and the UAO.

3.3.1 General Requirements for Construction Plans and Specifications

The construction plans and specifications shall comply with the standards and requirements outlined in the following sections. All components of the Removal Design shall be clear, comprehensive and organized. Supporting data and documentation shall define the functional aspects of the Removal Action. The design documents shall demonstrate that the Removal Action is capable of meeting Removal Action Objectives outlined in the Action Memorandum, including any performance standards.

The construction plans and specifications shall include the following:

- 1) Discussion of the design strategy and design basis including:
 - a. Compliance with requirements of the Action Memorandum, the UAO and all applicable regulatory requirements; and
 - b. Minimization of environmental and public health impacts;
- 2) Discussion of the technical factors of importance including:
 - a. Use of currently accepted environmental control measures and technologies;
 - b. The constructability of the design; and
 - c. Use of currently accepted construction practices and techniques
- 3) Description of the assumptions made and detailed justification for those assumptions.
- 4) Discussion of possible sources of error and possible operation and maintenance problems.
- 5) Detailed drawings of the proposed design.
- 6) Detailed specifications describing all aspects of construction.
- 7) Appendices including results of laboratory tests, field tests and any additional studies.

3.3.2 Design Phases

The Removal Design shall be developed in phases and submitted to the Forest Service for review after each phase. Periodic meetings with the Forest Service after each phase are required.

Submittals shall be made in accordance with the schedule in the approved Work Plan.

3.3.2.1 Preliminary Design

A Preliminary Design shall reflect the design completion at approximately 30% completion and submitted to the Forest Service for review and comment. This is the first phase of the Design Phases. During this phase of the design process, the Preliminary Design shall identify and note existing conditions at the site that may influence the design and implementation of the Removal Action. The Preliminary Design shall address the basic technical requirements of the Removal Action. The Preliminary Design submittal shall include the following elements, at a minimum:

- 1) Preliminary plans, drawings and sketches, including design calculations;
- 2) Results of additional field sampling including background and correlation sampling and identification of areas of sheet wash that need removal and consolidation;
- 3) Identification of sites of potential archeological interest within anticipated work areas;
- 4) Design assumptions and parameters;
- 5) Proposed cleanup verification methods, including compliance with applicable laws and regulations;

- 6) Outline of design specifications;
- 7) Proposed locations of borrow pits and evaluation of suitability of borrow soils for cover material and revegetation;
- 8) Proposed locations of construction activity and stockpile locations;
- 9) Expected long-term operation and monitoring requirements;
- 10) Real estate and easement requirements; and
- 11) Preliminary construction schedule including contracting strategy.

The Preliminary Design shall include the supporting data and documentation to define the functional aspects of the Removal Action. In addition, the Preliminary Design shall include engineering design calculations to support the elements of the design.

Any revisions or amendments to the Preliminary Design as required by the Forest Service shall be incorporated into the subsequent design phase.

3.3.2.2 Pre-Final Design

A Pre-Final Design shall reflect the design completion at approximately 90% completion and submitted to the Forest Service for review and comment in accordance with the schedule in the approved Work Plan. The Pre-Final Design shall incorporate modifications submitted by the Forest Service during review of Pre Design Studies Report, technical memoranda, and the Preliminary Design. The Pre-final Design submittal shall consist of the following components, at a minimum:

- 1) 90 % Design Plans and Specifications;
- 2) Construction Quality Assurance Plan;
- 3) Operation and Maintenance Plan;
- 4) Removal Action Construction Implementation Plan;
- 5) Cost Estimate for the Removal Action;
- 6) Drawings; and
- 7) Construction Health and Safety Plan

Correlation between drawings and specifications is a basic requirement of construction plans and specifications submittal package. Therefore, prior to submitting the Pre-Final Design, perform the following tasks:

- 1) Coordinate and cross-check the specifications and drawings; and
- 2) Complete the proofing of the edited specifications and required cross-checking of all drawings and specifications.

The Forest Service shall submit written comments/revisions to the Pre-Final Design. These comments shall be provided as a narrative report and/or markings on design plan sheets (marked-up 90% prints). These revisions shall be incorporated into the Final Design.

3.3.2.3 Final Design

The Final Design is the final phase of the design process. The Final Design is a package which includes the plans, specifications, cost estimate, and drawings. The Final Design shall be prepared in

accordance with the approved schedule in the Work Plan and submitted to the Forest Service for approval. The Final Design shall incorporate all comments and revisions provided by the Forest Service. If required, the On-Scene Coordinator may request additional revisions and a re-submittal may be required.

Upon request from the On-Scene Coordinator, submit any marked-up prints or drawings, which the Forest Service may have provided in the form of comments/revisions on previous design submittals.

3.3.3 Cost Estimate for the Removal Action

A Cost Estimate for the Removal Action shall be prepared during the design phase. The cost estimate shall include both capital and operation and maintenance costs for the Removal Action. The cost estimate shall include current prices for labor, material, transportation, equipment and other services.

A Final Cost Estimate shall reflect the elements of the Final Design. It shall be submitted in the Final Design package.

3.3.4 Removal Action Construction Implementation Plan

A Removal Action Construction Implementation Plan is a plan that outlines the (a) schedule for the specific components to coordinate and implement the design of the Removal Action and (b) describes the overall strategy and activities to construct the specific design components of the Removal Action. A Construction Implementation Plan shall be prepared in coordination with the On-Scene Coordinator and the schedule in the Work Plan. Essentially, the Construction Implementation Plan schedule is embedded in the Work Plan schedule. It shall include a schedule for the construction that identifies timing for initiation and completion of all critical path tasks in the design. The Respondents shall specifically identify dates for completion of the construction and major interim milestones in conformance with the overall goal of submitting the Construction Completion Report not later than April 1, 2013. The Construction Implementation Plan is a management tool which should address the following topics:

- 1) Activities to implement the construction of each of the components of the design;
- 2) How these activities will be coordinated to facilitate construction/ implementation in accordance with the approved schedule in the Work Plan;
- 3) Potential major scheduling problems or delays, which may impact overall schedule;
- 4) Establish lines of communication for discussing and resolving problems, if they arise;
- 5) Common and/or anticipated remedies to overcome potential problems and delays.

The draft Construction Implementation Plan shall be submitted with the Prefinal Design for review and comment by the Forest Service. The final Construction Implementation Plan shall be submitted with the Final Design for review and approval.

3.3.5 Community Involvement Support

Community Involvement Support includes preparation of a one-page, two sided Fact Sheet. The Fact Sheet shall be in color, include photos, and key information about the Removal Action. The intent of this Fact Sheet is for distribution by the Forest Service at either a public meeting or in a mailing.

3.4 TASK IV: REMOVAL ACTION CONSTRUCTION

The Removal Action Construction consists of the activities associated with the implementation of the Final Design. The Removal Action shall be implemented in accordance with the Final Design, Construction Quality Assurance Plan, Construction Health and Safety Plan, and Construction Implementation Plan. Implementation shall include the activities described in the following sections.

3.4.1 Preconstruction Inspection and Conference

A preconstruction inspection and conference shall be scheduled with the Forest Service. The preconstruction inspection and conference shall accomplish the following:

- 1) Review methods for documenting and reporting inspection data;
- 2) Review methods for distributing and storing documents and reports;
- 3) Review work area security and safety protocol;
- 4) Discuss any appropriate modifications to the Construction Quality Assurance Plan to ensure that site specific considerations are addressed;
- 5) Introduce key construction contractor, engineering and project management personnel and review roles during construction activities;
- 6) Conduct a site walk-around to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations; and
- 7) Discuss the sensitivity of adjacent archeological sites and the importance of keeping material and equipment confined to only pre approved locations.

The preconstruction inspection and conference shall be held fourteen days (14) prior to start of construction. The preconstruction inspection and conference shall be documented by a designated person and minutes shall be transmitted by the Respondents to all parties in attendance.

3.4.2 Design Changes during Construction

During construction, unforeseen site conditions, changes in estimated quantities of required construction materials and other design changes or modifications to the Final Design associated with the project shall be presented to the Forest Service On-Scene Coordinator in a timely manner. Any Final Design changes and/or modifications shall be pre-approved, in writing, by the Forest Service On-Scene Coordinator prior to implementation. Some examples of design changes and/or modifications include:

- 1) Those that involve the deletion or addition of a major component of the approved Removal Action (e.g. deleting any designed layer of a multi-layer cap);
- 2) Those that result in a less effective treatment for wastes associated with the site;
- 3) Any changes that may result in an increase of the exposure to chemicals of concern and/or risk to human health or the environment as compared to the goals for the completed Removal Action as stated in the UAO and this SOW;
- 4) Those that result in a significant delay in the completion of the Removal Action;
- 5) Any other changes/modifications that alter or are outside of the scope or intent of the

- approved removal design; and
- 6) Forest Service shall be notified of other changes made during construction through daily inspection reports and monthly progress reports.

3.4.3 Removal Action Construction Completion and Acceptance

Within seven (7) days prior to completion of construction, the following activities and reporting shall be scheduled with the Forest Service On-Scene Coordinator to ensure timely completion of the Removal Action Construction tasks, Forest Service approval, closeout and transition to the operation and maintenance/monitoring phase of the Removal Action.

3.4.3.1 Pre-Final Construction Conference

A pre-final construction conference is a meeting at the Site with the Forest Service On-Scene Coordinator to discuss procedures and requirements for Removal Action construction completion and final inspection. A pre-final construction conference shall be scheduled, in writing, with the Forest Service On-Scene Coordinator. The meeting shall include representative from both parties including the Project Manager, the Forest Service On-Scene Coordinator, construction contractors, and design engineer, if requested.

A list of suggested topics to be included at the conference, but is not limited to the following:

- 1) Final Operation and Maintenance (O&M) Plan submission;
- 2) Cleanup responsibilities;
- 3) Demobilization activities; and
- 4) Pre-final inspection schedule;

Details of the Pre-Final Construction Conference shall be documented by a designated person and minutes shall be transmitted by the Respondents to all parties in attendance.

3.4.3.2 Pre-Final Inspection

A Pre-Final Inspection is a field meeting at the Site with the Forest Service On-Scene Coordinator to review the implementation of the Final Design. The Pre-Final Inspection will follow the pre-final construction conference. The Forest Service On-Scene Coordinator shall schedule and lead the pre-final inspection. The field meeting shall include representative from both parties including the Project Manager, the Forest Service On-Scene Coordinator, construction contractors, design engineer (if requested), and any other Forest Service staff.

The Pre-Final Inspection will consist of a walk-through inspection of the entire site. The completed site work will be inspected to determine whether the project is complete and consistent with the contract documents and the approved Work Plan. Any outstanding deficient or incomplete construction items shall be identified and noted during the inspection.

A Pre-Final Inspection Report is a report that describes and outlines outcomes of the pre-final inspection. These outcomes shall include outstanding construction items, actions required to resolve those items, completion date for those items and a date for the final inspection. The Pre-Final

Inspection Report shall be submitted to Forest Service within seven (7) days following the pre-final inspection. A copy of this report shall be provided to all parties in attendance of the pre-final inspection. The Forest Service will review this report and provide any deficiencies and/or discrepancies; a re-submittal of this report shall be required within seven (7) days of notification of any deficiencies and/or discrepancies.

3.4.3.3 Final Inspection

A Final Inspection is a field inspection of the Removal Action Construction. The field inspection shall consist of a walk-through field inspection primarily focusing on outcomes of the Pre-Final Inspection. These outcomes include outstanding construction items, deficiencies, and/or non-compliance with design plans and specifications. The Pre-Final Inspection Report shall be used as a checklist. If any construction items remain deficient or incomplete after the Final Inspection, the inspection shall be considered a pre-final inspection requiring another pre-final inspection report and final inspection. Written notification to the Forest Service is required within seven (7) days upon completion of any outstanding construction items.

Demobilization of equipment shall be initiated; however, appropriate equipment shall be available to remediate any outstanding construction items identified during the pre-final or final inspections. All equipment scheduled for demobilization shall have been cleaned, decontaminated and staged for demobilization prior to the final inspection.

The Forest Service On-Scene Coordinator shall schedule and lead the Final Inspection. The field meeting shall include representative from both parties including the Project Manager, the Forest Service On-Scene Coordinator, construction contractors, design engineer (if requested), and any other Forest Service staff. A Final Inspection report shall be completed to document outcomes of the final inspection and submitted to the Forest Service within seven (7) days following the final inspection.

3.4.3.4 Construction Completion Report

The Construction Completion Report is a report which includes the following elements, at a minimum:

- 1) A brief description of the outstanding construction items identified in the pre-final inspection and final inspection reports; include certification that these items were in compliance and in accordance with Forest Service direction and approval;
- 2) A synopsis of the work defined in the approved Work Plan and the Final Design and certification that this work was performed in accordance with Forest Service direction and approval;
- 3) A description of any changes and/or modifications to the work defined in the approved Work Plan and Final Design, including as-built drawings of the constructed Removal Action structures, and describe why the changes and/or modifications were required or beneficial for the success of the project;
- 4) Recommendations for the overall project.

The Construction Completion Report shall be submitted to the Forest Service within sixty (60) days following the Final Inspection Report and receipt of validated, final laboratory analytical data packages.

The Construction Completion Report shall be reviewed by the Forest Service. The Forest Service shall provide comments and/or deficiencies for a re-submittal of a revised Construction Completion Report. The revised report shall be submitted to the Forest Service within thirty (30) days of receipt of those comments and/or deficiencies. The Forest Service shall review the revised report and inform the Respondents, in writing, of approval or disapproval of the final Construction Completion Report.

3.5 TASK V: OPERATION AND MAINTENANCE

Following Forest Service approval of the Construction Completion Report, the Respondents shall implement maintenance procedures as required by the approved Operation and Maintenance Plan for the Removal Action. The Forest Service understands and expects weather conditions to affect the establishment of the vegetation (plants) at the Site. Vegetation shall be in-place within a reasonable amount of time.

3.5.1 O&M PLAN

The purpose of the Operation and Maintenance Plan (O&M Plan) is to cover long term operation and maintenance of the Removal Action. The Operation and Maintenance (O&M) Plan shall describe the O&M tasks and inspection activities. The plan, at a minimum, shall require annual inspections to be composed of the elements listed below.

- 1) Evapotranspiration Cover Inspection
 - a. Check for erosion of cap and repair erosion and reseed
 - b. Check for areas of subsidence and fill to restore proper shape for drainage.
 - c. Verify adequate vegetation coverage and reseed areas where vegetation does not meet plant coverage requirements
 - d. Check for holes caused by burrowing animals and fill in holes.
- 2) Mine Site Inspection
 - a. Inspect repository perimeter fence for damaged posts, broken wire, and gate damage and perform repairs.
 - b. Inspect mine shafts and vents for subsidence or breakthrough and repair as required.
 - c. Inspect drainage channels and remediated slopes for erosion and repair erosion and reseed.
- 3) Typical O&M tasks and inspection activities

The O&M plan shall be submitted with the Pre-Final Design.

3.5.2 Acceptance Inspection

The acceptance inspection is a field inspection which will consist of a walk-through inspection of the project site focusing on any problems noted in the annual O&M progress reports.

At the end of five (5) calendar years of operation and maintenance, if the Site meets all performance standards including successful establishment of a minimum of 80% of the natural analog for re-

vegetation, the Respondents may request, in writing, acceptance of the Removal Action from the Forest Service. Any defects in the design or construction of the Removal Action shall be identified and corrected prior to requesting acceptance.

The Forest Service On-Scene Coordinator shall schedule and conduct the acceptance inspection with assistance from the party having primary responsibility for operation and maintenance.

Final acceptance by the Forest Service shall not be made if any items remain deficient or do not meet the performance standards. Any deficient items shall be identified and a new acceptance inspection will be scheduled when the corrections have been made. Upon determination by the Forest Service that the site meets all performance goals and is acceptable, written notice of Forest Service's acceptance of the site shall be provided to the Respondents. The Forest Service will then take responsibility for inspecting the site no less frequently than once every five years to ensure that the Removal Action continues to be protective of human health and the environment.

3.6 TASK VI: REPORTING REQUIREMENTS

The Respondents shall prepare and submit work plans, design plans, specifications, and reports as set forth in Tasks I through V of this SOW to document the design, construction, operation, maintenance, and performance monitoring of the Removal Action.

3.6.1 Monthly Progress Reports

Monthly progress reports shall be prepared, as described below, to enable the Forest Service to track project progress during the removal design and construction phases of the Removal Action.

The Respondents shall at a minimum provide the Forest Service with monthly progress reports during the design and construction phases of the Removal Action including the information listed below. When appropriate, the Work Plan shall specify progress reports to be submitted more frequently.

- 1) A description of the work performed during the reporting period and estimate of the percentage of the Removal Action completed
- 2) Summaries of all findings and sampling during the reporting period
- 3) Summaries of all changes made in the Removal Action during the reporting period, indicating consultation with Forest Service and approval by the Forest Service of those changes, when necessary
- 4) Summaries of all contacts with representatives of the local community, public interest groups or government agencies during the reporting period
- 5) Summaries of all problems or potential problems encountered during the reporting period, including those which delay or threaten to delay completion of project milestones with respect to the approved schedule in the Work Plan and Pre-Design Studies Report
- 6) Summaries of actions taken and being taken to rectify problems
- 7) Summaries of actions taken to achieve and maintain cleanup standards and performance standards
- 8) Changes in personnel during the reporting period

- 9) Projected work for the next reporting period
- 10) Copies of daily reports, inspection reports, sampling data, laboratory/ monitoring data, etc.

3.6.2 Annual O&M Progress Reports

An Annual O&M Progress Report shall be prepared and submitted to the Forest Service annually during the operation and maintenance phase of the Removal Action.

Annual O&M progress reports shall consist of the same information required for the monthly progress reports as specified in Section 3.6.1 of this SOW. It shall also include an evaluation of the effectiveness of meeting the cleanup standards, performance standards and other goals of the Removal Action as defined in the UAO, this SOW, the Work Plan and the approved Final Design.

3.6.3 Summary of Reports and Submittals

The following is a summary, not all inclusive, of Reports and Submittals:

1. Work Plan
2. Design Health and Safety Plan
3. Pre-Design Studies Plan
4. Site Specific Sampling and Analysis Plan
5. Pre-Design Studies Report
6. Preliminary Design (30%)
7. Pre-Final Design (90%)
8. Construction Health and Safety Plan
9. Construction Quality Assurance Plan
10. Operation & Maintenance Plan
11. Final Design (100%), including Estimated Cost, Plans and Specifications
12. Construction Implementation Plan
13. Fact Sheet
14. Pre-Final Inspection Report
15. Final Inspection Report
16. Construction Completion Report
17. Monthly Progress Reports
18. Annual O&M Progress Reports
19. Meeting Notes/Minutes for Conferences, Inspections and Field Meetings

Draft and Final reports and submittals shall be prepared and submitted in accordance with this SOW and the UAO.

4.0 DESCRIPTION OF PROJECT PLANS

Project Plans are plans included in this SOW to support activities associated with the Removal Action. These plans shall be prepared and submitted as outlined in Section 3.0 of this SOW. These plans include:

- 1) Site Specific Sampling and Analysis Plan (SAP),
- 2) Design Health and Safety Plan,
- 3) Construction Health and Safety Plan and
- 4) Construction Quality Assurance Plan

The following sections describe in detail the required contents of each of these Project Plans.

4.1 SITE SPECIFIC SAMPLING AND ANALYSIS PLAN (SAP)

A Site Specific Sampling and Analysis Plan (SAP) is a plan which includes all sampling and analysis activities associated with the Removal Action. In addition, the SAP shall include sample analysis, data handling, and quality assurance.

The SAP shall be submitted with the Pre-Design Studies Plan.

The SAP shall, at a minimum, include the following elements:

1. Data Collection Strategy - The strategy section of the SAP shall include but not be limited to the following:
 - a. Description of the types and intended uses for the data, relevance to removal or restoration goals, and the necessary level of precision, accuracy, and statistical validity for these intended uses;
 - b. Description of methods and procedures to be used to assess the precision, accuracy and completeness of the measurement data;
 - c. Description of the rationale used to assure that the data accurately and precisely represent a characteristic of a population, variation of physical or chemical parameters throughout the Site, a process condition or an environmental condition. Factors which shall be considered and discussed include, but are not limited to:
 - i) Environmental conditions at the time of sampling;
 - ii) Sampling design (including number, location and distribution);
 - iii) Representativeness of selected media, exposure pathways, or receptors;
 - iv) Representativeness of selected analytical parameters;
 - v) Representativeness of testing procedures and conditions; and
 - vi) Independence of background or baseline from site influences.
 - d. Description of the measures to be taken to assure that the following data sets can be compared quantitatively or qualitatively to each other:
 - i) Removal Action data collected by the Respondents;
 - ii) Removal Action data generated by an outside laboratory or consultant employed by the Respondent versus data collected by the Respondents;
 - iii) Data generated by separate consultants or laboratories over some time period not necessarily related to the Removal Action effort; and
 - iv) Data generated by Forest Service or by an outside laboratory or consultant.

employed by Forest Service.

2. Sample Analysis - The Sample Analysis section shall specify the following:
 - a. Chain-of-custody, including:
 - i) Standardized field tracking reporting forms to establish sample custody in the field prior to and during shipment;
 - ii) Sample sealing, storing and shipping procedures to protect the integrity of the sample; and,
 - iii) Pre-prepared sample labels containing all information necessary for effective sample tracking.
 - b. Sample storage procedures and storage times;
 - c. Sample preparation methods;
 - d. Analytical procedures, including:
 - i) Scope and application of the procedure;
 - ii) Sample matrix;
 - iii) Potential interferences;
 - iv) Precision and accuracy of the methodology;
 - v) Method detection limits;
 - e. Calibration procedures and frequency;
 - f. Data reduction, validation and reporting;
 - g. Internal quality control checks, laboratory performance and systems audits and frequency, including:
 - i) Method blank(s);
 - ii) Laboratory control sample(s);
 - iii) Calibration check sample(s);
 - iv) Replicate sample(s);
 - v) Matrix-spiked sample(s);
 - vi) "Blind" quality control sample(s);
 - vii) Control charts;
 - viii) Surrogate samples;
 - ix) Zero and span gases; and
 - x) Reagent quality control checks.
 - h. Preventative maintenance procedures and schedules;
 - i. Corrective action (for laboratory problems); and
 - j. Turnaround time.
3. Data Record - The SAP shall also provide the format to be used to present the raw data and the conclusions of the investigation, as described in a, b, and c below:
 - a. The data record shall include the following:
 - i) Unique sample or field measurement code;

- ii) Sampling or field measurement location and sample or measurement type;
 - iii) Sampling or field measurement raw data;
 - iv) Laboratory analysis ID number;
 - v) Property or component measured; and
 - vi) Result of analysis (e.g., concentration).
- b. Tabular Displays - The following data shall be presented in tabular displays:
- i) Unsorted (raw) data;
 - ii) Results for each medium, organism, or for each constituent measured;
 - iii) Data reduction for statistical analysis;
 - iv) Sorting of data by potential stratification factors (e.g., location, soil layer, topography, vegetation form);
 - v) Summary data (i.e., mean, standard deviation, min/max values, and sample number); and
 - vi) Comparisons with background or reference data.
- c. Graphical Displays - The following data shall be presented in graphical formats (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.):
- d. Display sampling locations and sampling grid:
- i) Indicate boundaries of sampling area, and areas where more data are required;
 - ii) Display levels of contamination at each sampling location,
 - iii) Display geographical extent of contamination

All radiological surveys shall be performed in accordance with the Multi Agency Radiation and Site Investigation Manual (MARSSIM). This includes the final status survey to demonstrate that cleanup Removal Action goals were successfully achieved.

4.2 HEALTH AND SAFETY PLANS

Two Health and Safety Plans shall be prepared: (1) Design Health and Safety Plan and (2) Construction Health and Safety Plan. These two Health and Safety Plans are designed to protect on-site personnel and area residents from physical, chemical and all other hazards posed by the design, construction, operation and maintenance activities of the Removal Action.

The Health and Safety Plans shall address the following elements:

1. Major elements of the Health and Safety Plans shall include:
 - a. Facility or site description including availability of resources such as roads, water supply, electricity and telephone service;
 - b. Description of the known hazards and an evaluation of the risks associated with the incident and with each activity conducted;
 - c. Listing of key personnel (including the site safety and health officer) and alternates responsible for site safety, Removal operations, and for protection of public health;
 - d. Delineation of work area, including a map;

- e. Description of levels of protection to be worn by personnel in the work area;
- f. Description of the medical monitoring program for on-site responders;
- g. Description of standard operating procedures established to assure the proper use and maintenance of personal protective equipment;
- h. The establishment of procedures to control site access;
- i. Description of decontamination procedures for personnel and equipment;
- j. Establishment of site emergency procedures;
- k. Availability of emergency medical care for injuries and toxicological problems;
- l. Description of requirements for an environmental monitoring program. (This should include a description of the frequency and type of air and personnel monitoring, environmental sampling techniques and a description of the calibration and maintenance of the instrumentation used.);
- m. Specification of any routine and special training required for responders; and
- n. Establishment of procedures for protecting workers from weather related problems.

The Health and Safety Plans shall be consistent with:

- a. NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985);
- b. CERCLA Sections 104(f) and 111(c)(6);
- c. EPA Order 1440.3 -- Respiratory Protection;
- d. EPA Order 1440.2 -- Health and Safety Requirements for Employees Engaged in Field Activities;
- e. EPA Occupational Health and Safety Manual;
- f. EPA Interim Standard Operating Safety Procedures and other EPA guidance as developed by EPA;
- g. OSHA regulations particularly in 29 CFR 1910 and 1926;
- h. Applicable radiation safety standards (e.g. 10CFR 20.1101);
- i. State and local regulations; and
- j. Site or facility conditions.

As tasks are completed, the Health and Safety Plans shall be updated to reflect current site activities of the Removal Action.

4.3 CONSTRUCTION QUALITY ASSURANCE PLAN

The Construction Quality Assurance Plan is a plan which consists of site specific procedures to ensure that the completed Removal Action meets or exceeds all design criteria and specifications. A Construction Quality Assurance Plan shall be prepared based on the plans and specifications and performance standards for the Removal Action.

A Construction Quality Assurance Plan shall be submitted with the Pre-Final Design.

The Construction Quality Assurance Plan shall, at a minimum, include the items described in the following sections.

4.3.1 Responsibility and Authority

The responsibility and authority of all organizations (i.e. technical consultants, construction firms, etc.) and roles and responsibilities of key positions shall be described in the Construction Quality Assurance Plan. Key positions shall include a Registered Professional Engineer who will serve as the Construction Quality Assurance officer.

4.3.2 Inspection Activities

The Construction Quality Assurance Officer shall conduct the inspection activities during the Removal Action. The inspection activities shall be described in detail in the Construction Quality Assurance Plan. Inspection activities shall include observations and tests that will be used to monitor the construction of the Removal Action. The scope and frequency of each type of inspection shall also be identified. Inspections shall verify compliance with the design, applicable requirements of state and federal law and performance standards. Inspections shall also ensure compliance with all health and safety standards and procedures.

4.3.3 Sampling Requirements

The sampling requirements include activities to ensure that the design specifications and performance standards are achieved. These activities shall also include the elements of the SAP. The description of these activities shall include sample sizes, sample locations, frequency of sampling, testing to be performed, acceptance and rejection criteria, and plans for correcting problems as addressed in the design specifications.

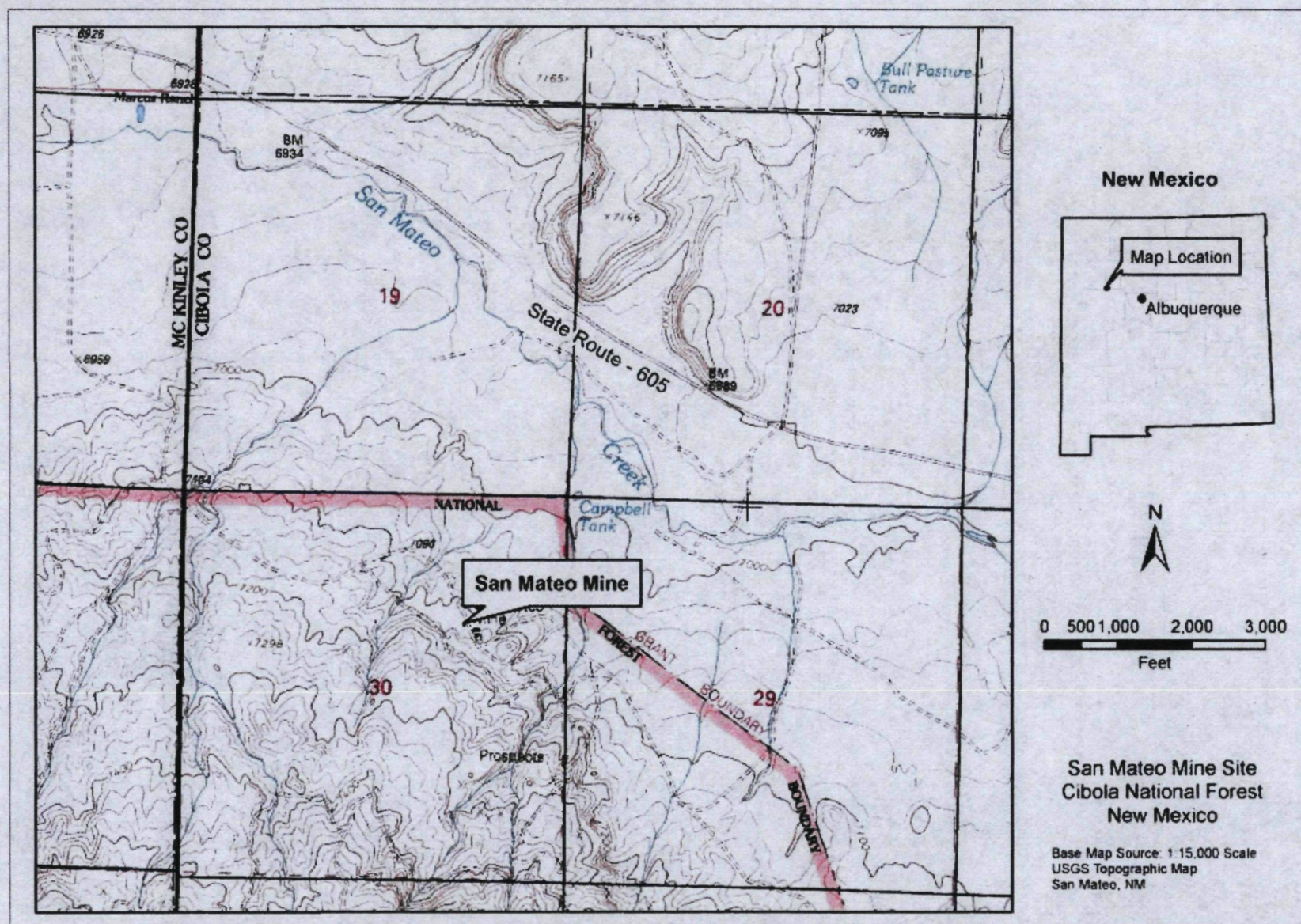


Figure 1:
Site Vicinity Map San Mateo Mine Cibola County, New Mexico

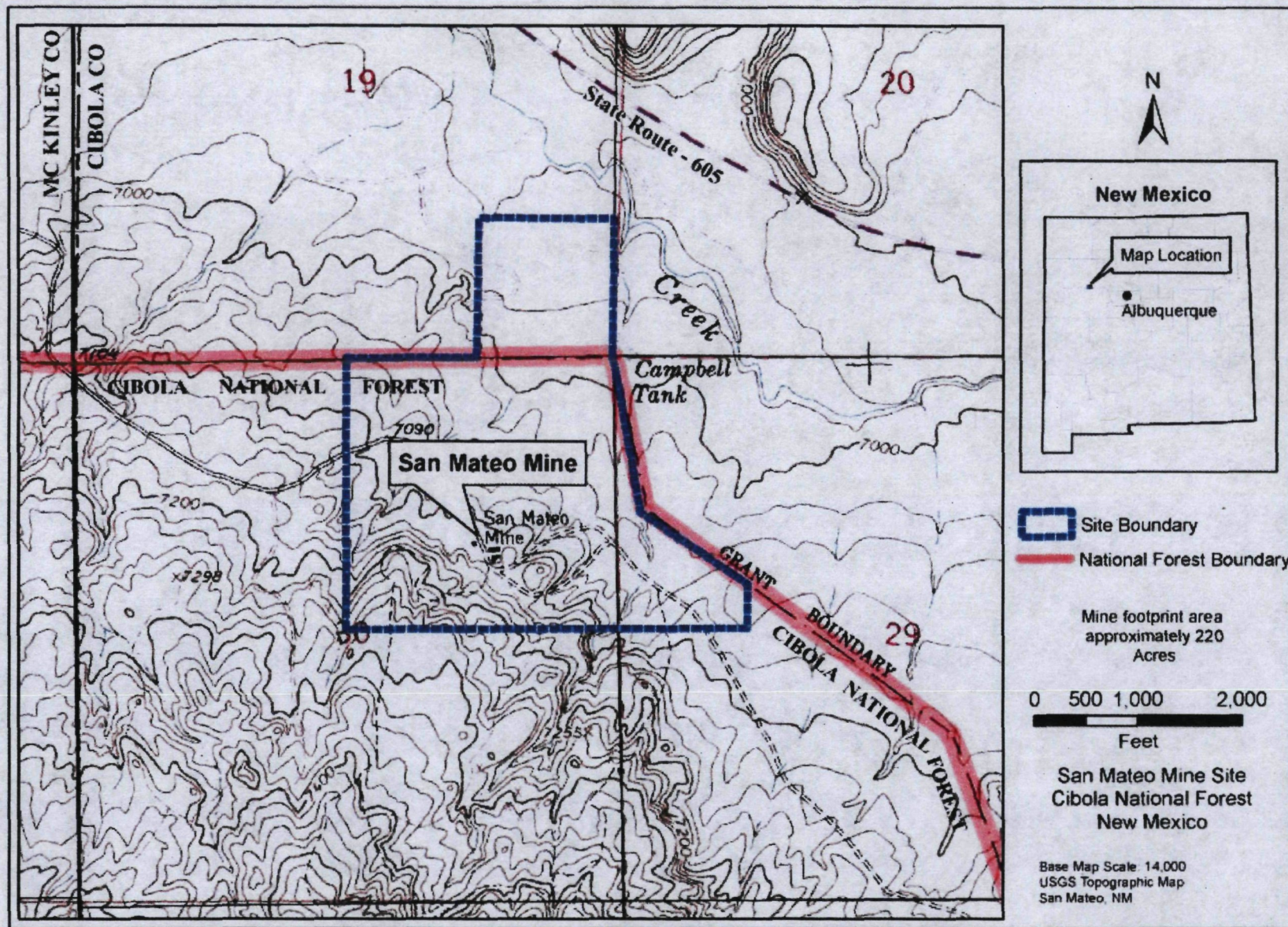


Figure 2:
Site Boundary Map San Mateo Mine Cibola County, New Mexico

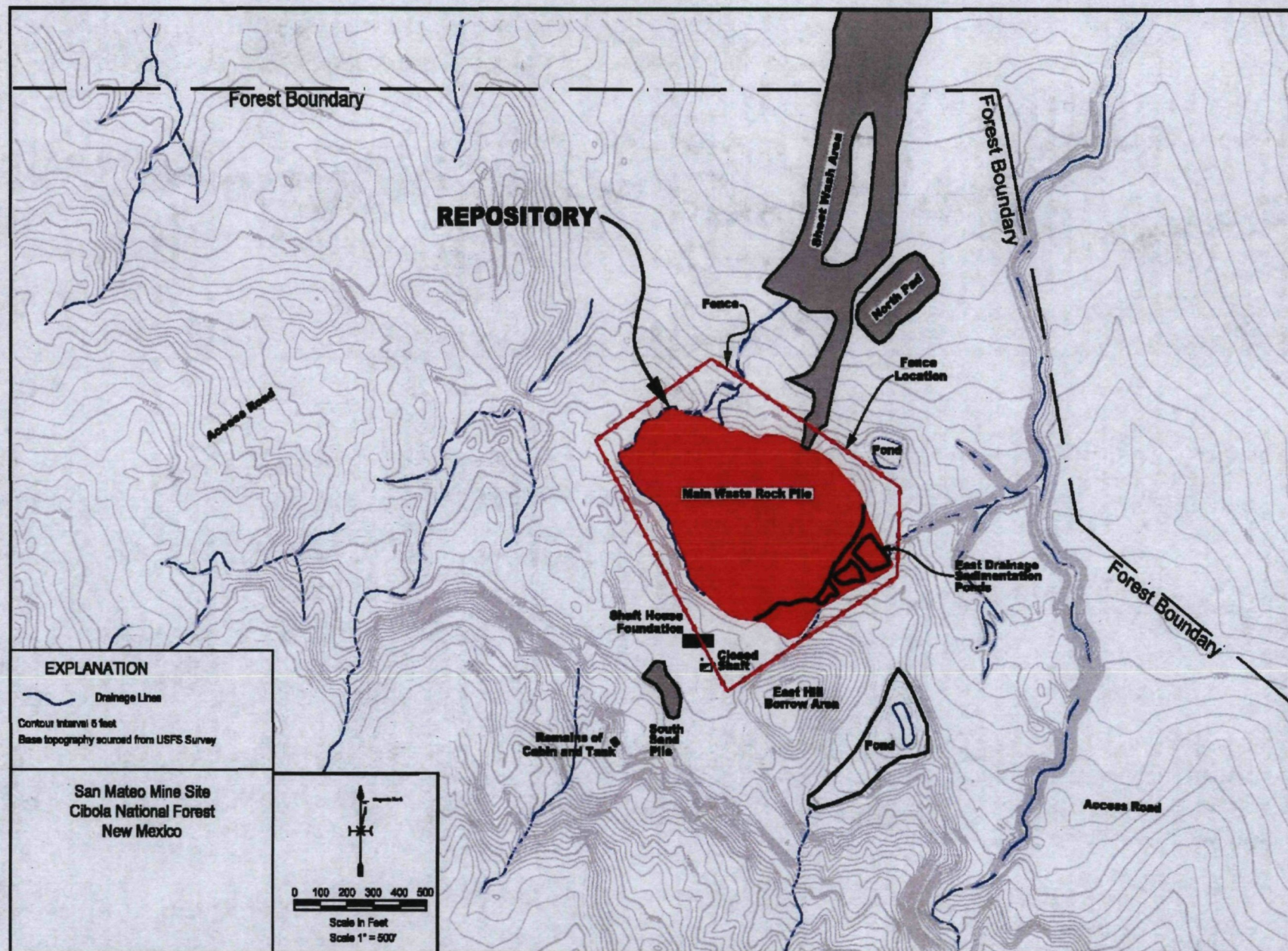


Figure 3:
San Mateo Mine Site Features



United States
Department of
Agriculture

Forest
Service

R3 Regional Office

333 Broadway SE
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REMOVAL ACTION APPROVAL MEMORANDUM

DATE: APR 18 2011

SUBJECT: Request for a Non-Time Critical Removal Action at the San Mateo Uranium Mine, Cibola National Forest, Cibola County, New Mexico

FROM: Steven John McDonald, On-Scene Coordinator (OSC)

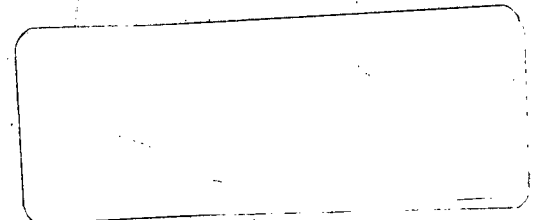
TO: Regional Forester

THROUGH: Matt Reidy, District Ranger, Mt. Taylor Ranger District
Nancy Rose, Forest Supervisor, Cibola National Forest
Maria McGaha, Regional Environmental Engineer, Southwestern Region
Danny Montoya, Regional Engineer, Southwestern Region

I. PURPOSE

A release or a significant threat of a release that poses a threat to public health or welfare or the environment is occurring on lands under the jurisdiction, custody, or control of the U.S. Department of Agriculture Forest Service (Forest Service), Mt. Taylor Ranger District of the Cibola National Forest, New Mexico. The purpose of this Memorandum is to request and document approval of the proposed non-time critical removal action described herein. This non-time critical removal action at the San Mateo Uranium Mine (Site) will reduce the potential for exposure to radium-226, radium-228, thorium-228, thorium-230, thorium-232, uranium-234, uranium-235, and uranium-238, the contaminants of concern.

This Non-Time Critical Removal Action Approval Memorandum documents and explains the commencement of a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA; 42 U.S.C. 9601 *et seq.*) removal action at the Site. The Forest Service's role is to protect the public health and welfare and the environment and to respond to a hazardous substance release on lands under the jurisdiction of the Forest Service, pursuant to the authority found in 42 U.S.C. 9604(a), Executive Order 12580, and 7 C.F.R. 2.60(a)(39). In general, for response actions on National Forest System lands, the Forest Service is the lead agency as defined by the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) 40 C.F.R. Part 300. The Forest Service conducts response actions consistent with the NCP.



II. SITE CONDITION AND LOCATION

A. Site Description

1. Physical Location

The Site is located approximately 110 miles from the city of Albuquerque, New Mexico, accessed by traveling west along Interstate Highway 40 and north along State Highway 605. The Site is located approximately 5.5 miles west of the town of San Mateo. Rural development may occur in the future on the adjoining private land. Local rural residences obtain their domestic water supply from groundwater wells.

The legal description is the Northeast (NE) 1/4, Section 30, Southeast (SE) 1/4 of the Southeast (SE) 1/4 of Section 19, and the West (W) 1/2 of the Northwest (NW) 1/4 of Section 29, Township 13 North, Range 8 West, of the New Mexico Principle Meridian. The geographic coordinates are 35° 19' 41.5" N latitude and 107° 43' 13.0" W longitude. Attachment 1 illustrates a map of the location of the Site.

Public use is limited by the remoteness and the lack of public access. The primary access is through the privately owned Schmitt Ranch on an un-paved private road (approximately 2.5 miles northwest of the mine) to the Site. No one resides at the Site. However, approximately six people live year-round at the Schmitt Ranch. The Schmitt Ranch is the permittee for the grazing allotment that includes the Site. The area is used by big game hunters during hunting season, but receives very little additional recreational use.

The dry, arid climate is typical of the region, with extreme diurnal and seasonal temperature variations. Precipitation averages 10-12 inches per year. Rainfall occurs almost entirely as infrequent, high intensity, short duration thunderstorms during the months from July through October. However, several inches of snow may accumulate during winter storms. Average high temperatures range from 48 to 90° F (6 to 32° C). Average low temperatures are between 14 to 50° F (-10 to 10° C).

There are Tribal interests near the Site. The Forest Service contacted the Pueblo of Sandia, Jicarilla Apache Nation, Hopi Tribe, Pueblo of Acoma, Navajo Nation, Pueblo of Jemez, Pueblo of Laguna, and Pueblo of Zuni to inform them of the removal action.

2. Site Characteristics

The Site is an inactive uranium mine located in Cibola County, New Mexico. The uncovered and uncontrolled waste rock and contaminated native soils (approximately 180,000 cubic yards of material which includes 160,000 cy of waste rock, 13,000 cy of north pad material, and 7,000 cy in the North Sheet-wash area) are situated within the boundaries of the Cibola National Forest on land administered by the Forest Service, and is under the jurisdiction of the Mt. Taylor Ranger District. Some mine waste has migrated onto adjacent private lands. This is the first removal action at the Site.

The Site is located on the northern flank of La Jara Mesa between the mesa top and San Mateo Creek. La Jara Mesa ranges from 8,000 to 8,300 feet (ft) above mean sea level (amsl) in elevation and is capped by Tertiary basalt flows from nearby Mount Taylor. Mount Taylor, located east of

the Site, is the highest point (11,305 ft amsl) in the San Mateo Mountains. Steep cliffs, 500 to 800 feet high, form the western and southern boundaries of La Jara Mesa. However, the northern flank is gently sloping. The Site is located at approximately 7,100 ft amsl. North of the Site, San Mateo Creek flows during wet weather from east to west in a broad alluvial valley at elevations below 7,000 ft amsl.

Surface runoff from the Site flows into an unnamed ephemeral tributary which enters San Mateo Creek approximately one-half mile north of the Site. San Mateo Creek flows to the west and then south into Blue Water Creek and the Rio San Jose. Several springs in the San Mateo watershed upstream of the Site discharge to San Mateo Creek. However, no springs have been identified in the vicinity of the Site.

Mining History:

The original mining claims for the San Mateo Uranium Mine were filed in 1955. The San Mateo ore body was delineated by drilling in 1957. The initial estimates of reserves were 840,000 to 2.2 million tons.

Rare Metals Corporation (associated with El Paso Natural Gas Corporation) began mine development with construction of the mine shaft (beginning in 1957 and completed in 1959). The first ore was shipped in 1959 and production continued sporadically until at least 1971. Rare Metals Corporation operated the mine from 1957 to 1962. El Paso Natural Gas Corporation assumed operations from 1962 until 1964. The mine was sold to United Nuclear Corporation (UNC) and operated the mine from 1964 to 1971. UNC ceased mining at the Site in January 1971.

Minor exploration and assessment work continued until 1984. Between 1971 and 1979, UNC retained Teton Exploration Drilling Company, Inc. to conduct mine claim assessment work on the San Mateo claims. UNC purchased Teton in 1979 and continued conducting mine claim assessment work until 1981 when UNC sold its interest in the mining claims to Homestake Mining Company.

In 1984, Homestake notified the USDA Forest Service of its intent to abandon all claims and cease all operations. However, Homestake continued to perform assessment work and maintained the eight claims covering the mine through the 1988 assessment year. Western Energy Development Corporation currently holds claim to the mine site and surrounding area.

Uranium ore was mined from an 8-foot thick deposit in the Brushy Basin Sandstone approximately 1,057 feet below ground surface (bgs). Surface facilities consisted of a head frame with a hoist and ore bin structure, warehouse, employee change room, office building, machine shop and hoist, power plant building, mine waste dump, settling ponds, and access roads. A warehouse building near the shaft opening housed cable drums that activated the skip cages. The shaft included a pump at 900 feet below ground surface to remove water. After drilling and blasting the mine stopes, ore was moved to the draw point, allowed to fall into ore cars in the lower level, and hauled to the ore loader at the bottom of the shaft. When ore was brought to the surface, it was unloaded and measured into trucks, which transported the ore to a uranium processing mill.

Ore processing was not performed on Site. Waste rock was disposed of at the mine head in a series of waste rock terraces. A pad consisting of material similar to the main waste rock pile was constructed on a flat area northeast of the main waste rock pile. This pad is referred to as the north pad (also known as the leach pad).

Since the mine closed in 1971, all buildings and surface facilities have been removed and only small remnants of the former surface structures remain. The main shaft and any emergency or air shafts associated with the mine apparently have been sealed. Other mine features such as the mine road, waste rock pile, north pad, and several settling ponds remain at the Site. These mine features are illustrated on a map in Attachment 2.

3. Removal Site Evaluation

Several studies conducted at the Site identify mine features that pose a potential threat to human health and the environment. The San Mateo Mine was identified in the September 1986 New Mexico Environmental Improvement Division (NMEID) Report which evaluated the hydraulic connection between surface waters and shallow alluvial groundwater for San Mateo Creek. The study concluded that mine discharges (possibly the San Mateo Mine) have chemically impaired the San Mateo Creek's shallow alluvial aquifer down gradient from the Site.

In 1988, New Mexico Environment Department (NMED) conducted a Site Discovery and Preliminary Assessment of the Site. This very limited investigation documented "large spoils piles containing high concentrations of selenium, molybdenum, radium-226, and gross-alpha activity." In January 1989, after review of the NMED report, EPA recommended to the USDA Forest Service that a Screening Site Inspection (SSI) be conducted, including a radiological survey, sampling to characterize the wastes, and an investigation of the shallow alluvial aquifer.

In 1993, on behalf of the Forest Service, SAIC conducted a Site Inspection (SI) of the site including radiological field screening, and waste rock and environmental (soil, air, sediment and groundwater) sampling. Elevated metals concentrations above background were measured in soil samples collected from the waste rock pile and north pad area. No contaminants were detected in air samples collected upwind and downwind of the site. The January 1994 SI Report documented elevated levels of gamma radiation and migration of radioactive contaminants from the Site.

In September 2010, on behalf of the Forest Service, SAIC prepared the Final Engineering Evaluation/Cost Analysis (EE/CA) Report. Site investigation activities included soil and waste rock pile sampling and shallow soil sampling. A shallow alluvial groundwater system assessment was also initiated. During this assessment, seven drilling attempts were made to a maximum depth of 56 below ground surface. These drilling attempts were met with refusal and shallow groundwater was not encountered. The EE/CA concluded that the results of this assessment determined that no shallow groundwater was present in the shallow groundwater alluvial system.

A Dose Radiological Survey and Gamma Walkover Survey were also included in the EE/CA. Significantly elevated levels of gamma radiation measured over the waste rock pile and north pad confirm that these are the two primary areas of radiation contamination at the Site.

In addition, sampling results indicate that the radioactive contamination is being transported from the Site via runoff and surface water flow mobilized via precipitation and surface water.

The Dose Rate Survey determined the background gamma level radiation around the perimeter of the Site and at the base of the arroyo leading offsite is less than 50 Micro Roentgens per Hour ($\mu\text{R/hr}$). The waste rock pile and the north pad show readings above 100 $\mu\text{R/hr}$ with individual readings as high as 800 $\mu\text{R/hr}$ indicating gamma radiation activity.

The Gamma Walkover Survey determined an elevated level of gamma radiation centered on the immediate waste rock pile and north pad. Significant gamma contamination was observed between the north pad and waste rock pile and north beyond the Site boundary onto private land. The extent of the gamma radiation beyond the northern site boundary suggests that contamination has been transported downgradient with the most obvious mechanism being surface water runoff.

Analytical soil results documented elevated levels of uranium and selenium in the waste rock. Uranium levels were between 38 mg/kg and 1380 mg/kg, approximately over 100 times those found as background (0.41 – 1.65 mg/kg).

From the EE/CA report, the Forest Service confirmed that soil and waste sources at the Site contain radionuclide (uranium, thorium and radium) that pose a potential threat to human health and the environment. It was also confirmed that the soil and waste sources have physically been transported due to runoff onto adjacent private land.

Runoff at the site occurs within the dry drainage channels or arroyos. Runoff to the eastern channel then flows toward San Mateo Creek, one half mile north of the site. Site data and available hydrogeological studies support the conclusion that shallow groundwater contamination from the leaching of impacted surficial mining wastes is not identified as a potential hazard at the site based on the lack of springs, seeps, and shallow (< 50 feet bgs) exploitable groundwater resources.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

The 180,000 cubic yards of waste sources contain radionuclide: uranium, thorium, and radium. These radionuclides undergo radioactive decay to form daughter elements. These daughter elements include thorium-232, thorium-230, radium-226, radium-228, and the release of alpha, beta, and gamma radiation. (The dominant radiological exposure route for human receptors is external gamma radiation present in the waste rock and north pad material.) The following table outlines the radionuclides documented in the waste rock area and north pad area.

Table 1 Maximum Radionuclide Levels at San Mateo Uranium Mine

Radionuclide	Maximum Radionuclide Levels (pCi/g)
Gross alpha	3,600 pCi/g
Gross beta	1,700 pCi/g
Radium-226	560 pCi/g
Radium-228	8.5 pCi/g
Thorium-228	1.9 pCi/g
Thorium-230	850 pCi/g
Thorium-232	2.01 pCi/g

The majority of the waste rock pile and mine features are not vegetated resulting in a direct pathway of concern for ingestion, and inhalation, and direct exposure to waste rock/soil, surface water/sediment, and air exposure pathways. These uncovered and uncontrolled waste sources may also be released through emanation, wind erosion, surface water runoff, infiltration, and uptake by vegetation. This contaminated soil is subsequently carried downstream via surface water pathway, thereby degrading sediment quality.

The primary exposure pathway at the San Mateo site is direct exposure to waste rock, pad material, and surface soil/sediment contaminated with radionuclides and toxic metals. The dominant radiological exposure route for human receptors is direct exposure to external gamma radiation in waste rock.

EPA has determined that radionuclides are a human carcinogen. Exposure to high levels of radium over a long period of time may result in harmful effects including anemia, cataracts, fractured teeth, cancer (especially bone cancer), and death. Some of these effects may take years to develop and are mostly due to gamma radiation. Radium gives off gamma radiation, which can travel fairly long distances through air. Therefore, just being near radium at the high levels that may be found at some hazardous waste sites may be dangerous to human health. (ATSDR, 1990)

5. National Priorities List (NPL) Status

This Site is not listed on the NPL.

6. Maps, Pictures, and other Attachments

Attachment 1: Site Location Map

Attachment 2: Mine Feature Map

B. Other Actions to Date

1. Previous Actions

New Mexico Environment Department, *Site Discovery and Preliminary Assessment (PA)*, May 1988

USDA Forest Service, Andrew Raby, *Expanded PA*, May 1989

SAIC, *San Mateo Mine Site Inspection*, January 1994

United States Department of Interior National Park Service, John Burghardt, *Gamma Radiation Survey*, March 1997

SAIC, Draft *Engineering Evaluation/Cost Analysis (EE/CA) Report* was available for public review and comment from November 23, 2009 to February 12, 2010

SAIC, Final *Engineering Evaluation/Cost Analysis (EE/CA) Report*, dated September 2010

2. Current Actions

Community Involvement Plan August 2001, ongoing.

C. Federal, State and Local Authorities' Roles

1. Federal, State and Local Actions to Date

The Forest Service requested and received the State ARARs from New Mexico Environment Department (NMED) in 2000.

The Forest Service requested and received input and recommendations from NMED regarding the groundwater monitoring well installation on Red Rock Ranch well (GW-3: over two miles northwest of the mine site).

The Forest Service submitted a letter to the Environmental Protection Agency (EPA) and the NMED to request comments and input of the Draft EE/CA report in November 2009.

In response to the Forest Service request for public comments from the review of the Draft EE/CA report, NMED submitted a letter dated December 4, 2009 and February 7, 2010.

In response to the Forest Service request for public comments from the review of the Draft EE/CA report, Hopi Tribe submitted a letter dated November 30, 2009, in support of an environmental cleanup.

The Forest Service will notify Federal, State and Local communities following approval, and prior to implementation, of the actions described herein.

2. Public Involvement

The Forest Service prepared a Fact Sheet and Community Involvement Plan which identifies issues of community concern and actions that have been taken or will be taken to keep all interested individuals, groups, federal, state and local officials informed about actions described herein.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

The primary Contaminants of Concern at the Site are the radium-226 and thorium-230. Other contaminants of concern are radium-228, thorium-228, thorium-232, uranium-234, uranium-235, and uranium-238. The average concentration of radium-226 in the soil samples is 136.33 pCi/g with an average error of ± 3.51 pCi/g. The average radium-226 concentration for the samples collected outside the source area is 7.19 pCi/g with an error of ± 0.76 pCi/g and the average background Radium-226 concentration is 1.60 pCi/g with an error of ± 0.51 pCi/g. This distribution pattern indicates an area of elevated concentrations of Radium-226 occurs at the Site.

Thorium-230 levels are also elevated in the waste rock and north pad areas. The average concentration of thorium-230 in the soil samples from the waste rock area is 139.10 pCi/g with an average error of ± 3.72 pCi/g. The average thorium-230 concentration for the samples collected outside the source area is 4.76 pCi/g with an error of ± 0.73 pCi/g and the average background thorium-230 concentration is 0.53 pCi/g with an error of ± 0.46 pCi/g. This distribution pattern indicates an area of elevated concentrations of thorium-230 occurs at the Site.

The following table summarizes waste source analytical results and the cleanup standard.

Table 2 Summary of Analytical Results for Radium-226 and Thorium-230

Waste Source	Radium-226 Sample Result (pCi/g) ¹	Thorium-230 Sample Result (pCi/g) ¹	Cleanup Standard
Settling Ponds	210-360	90-220	Consistent with Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) and the Uranium Mill Tailings Radiation Control Act regulations at 40 CFR 192.12, the concentration of radium-226 in land averaged over the first 15 cm of soil below ground surface shall not exceed the background amount by more than 5 pCi/g of radium-226
Private Land	1.3-23	0.84-9.6	
Waste Rock and North Pad	15-560	22-850	
Gamma Survey Surface Soil	0.28-38	0.18-20	
Background (pCi/g)	1.2-2.0	0.47-0.59	

¹picoCuries per gram

Conditions at the Site represent a release, and potential threat of release, of a CERCLA hazardous substance threatening the public health or welfare, or the environment, based on the factors set forth in the NCP at 40 CFR Section 300.415(b)(2). These factors include:

§ 300.415 (b) (2) (i): Actual or potential exposure to nearby populations, animals, or the food chain from hazardous substances or pollutants or contaminants.

Previous investigations and the EE/CA, September, 2010, determined that the risk to humans has increased due to past uranium mining activities. The current land use (unrestricted) exposes humans to radionuclides in the uncovered and unlined waste rock and north pad areas, and in and around the settling ponds by ingestion, inhalation, and dermal contact. These areas are adjacent to drainages where water flows northward into the San Mateo Creek. Surface water erosion has caused contaminants to migrate off Site via the surface water pathway.

The primary potential threat is to hikers, hunters, ranchers, all terrain vehicle riders, and four-wheel drive enthusiasts. Public land adjacent to the Site is leased for cattle grazing that may frequent the Site.

No one resides at the Site; however, the Site is known to be used by the public and local residents for recreational purposes. The immediate vicinity of the Site is sparsely populated.

Approximately six people live year-round in the area at the Schmitt Ranch 2.5 miles northwest of the Site. Visitors include hunters, off-site residents and ranchers, hikers, and other recreationalists. These visitors could be potential receptors through transport of contaminated dust and sediment. Public land adjacent to the Site is leased for cattle grazing and wildlife may frequent the Site where radionuclides have been detected.

§ 300.415 (b) (2) (ii): Actual or potential exposure of drinking water supplies or sensitive ecosystems.

The Site is located in, surrounded by, and drains to, San Mateo Creek watershed. Although no drinking water is known to have been impacted by the Site, the nearest private ground water uses are residents at the Schmitt Ranch who use surface water and groundwater for domestic use and stock watering. No elevated levels of contaminants have been detected in their domestic well.

§ 300.415 (b) (2)(iv): High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate.

There are elevated levels of radionuclides in several distinct areas of the Site. These source areas include soils from drainage pathways, waste rock, settling pond and the north pad area (where radium-226 average concentrations of 136.33 pCi/g and thorium-230 average concentrations of 139.10 pCi/g were found).

Surface drainage through the 180,000 cubic yards of uncovered and uncontrolled waste rock pile and the north pad area containing uranium, thorium, and radium can carry contaminated soil to San Mateo Creek. The un-reclaimed and exposed surface of the waste rock pile and the north pad areas are also vulnerable to wind erosion, which causes additional off site migration of radionuclide contaminants in windborne dust emissions from the Site.

§ 300.415 (b) (2)(v): Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.

Because the waste rock pile and north pad areas are exposed and open to the elements, the severity of the weather will affect the magnitude of the release of contaminants at the Site. Contaminated surface soil can continue to migrate into San Mateo Creek, and other Site drainages, in storm water runoff. Un-reclaimed waste rock pile and north pad areas are also

vulnerable to wind erosion, which causes additional off site migration of radionuclide contaminants in windborne dust emissions from the Site.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action proposed in this Removal Action Approval Memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

Based on the analysis and findings of the EE/CA, the following Removal Action Objectives (RAOs) for the response action were developed for the entire Site:

- Reduce on-site gamma radiation exposures of on-site human receptors below a 10^{-4} increased cancer risk.
- Minimize or eliminate potential for exposure via direct contact of human and ecological receptors to unacceptable concentrations of radionuclides in the waste material.
- Minimize or eliminate the release of waste material contaminated with radionuclides from the Site into the San Mateo Creek watershed or onto nearby private land via the surface water pathway.
- Reduce or eliminate the migration of radionuclides from the site via the air pathway.
- Minimize ingestion and uptake of radionuclides by plants and animals.

To achieve these RAOs, the following removal action alternatives were developed and evaluated in the EE/CA for remediation of radionuclide contaminated waste material on the Site:

Alternative 1: No Action

Alternative 2: Institutional Controls / Fencing

Alternative 3: Runoff and Sediment Control

Alternative 4a: Consolidation On-Site with Simple Cap

Alternative 4b1: Consolidation On-Site with Rock Armoring

Alternative 4b2: Consolidation On-site with Geomembrane and Rock Armored Cover

Alternative 4c1: Consolidation with Evapotranspiration Cover

Alternative 4c2: Consolidation with Evapotranspiration Cover Installed over a Geomembrane

Alternative 5a1: On-Site Repository with Simple Cap

Alternative 5a2: On-Site Repository with Geomembrane and Simple Cap

Alternative 5b1: On-Site Repository with Rock Armoring

Alternative 5b2: On-Site Repository with Geomembrane and Rock Armored Cover

Alternative 5c: On-Site Repository with Bottom and Top Geomembrane Liners and a Rock

1. Proposed Action Description

The recommended alternative in the draft EE/CA, August 2009, was Alternative 4b2 – *Consolidation On-Site with Geomembrane and Rock Armored Cover*. In November 2009, the Forest Service notified the public, State and Federal agencies of the availability of draft EE/CA and requested review and comment. In response to public comments, Alternative 4b1 and 4c1 were also evaluated. After further review and in consideration of public comments, the Forest Service Region 3 staff recommends 4c1 - *Consolidation with Evapotranspiration Cover* - as the appropriate response action for the Site under CERCLA.

The objective of the response action is to mitigate the threats to human health and the environment posed by the radionuclides present on the surface of the Site. The Forest Service proposes to further characterize, remove, consolidate and cap surface mine wastes on-Site. Consolidation and capping of waste rock onto the main waste rock pile footprint would reduce the risk of exposure to gamma radiation and direct contact, inhalation, or ingestion of soil by covering the most contaminated surface material on the Site. This would reduce both human health and wildlife risks. Contaminant transport off-site via erosion would be minimized using enhanced surface drainage features such as re-grading the waste rock pile and installation of settling ponds along with the construction of an evapotranspiration (ET) cover. In addition, this alternative includes re-grading and re-vegetation of the area remediated, further reducing windblown transport of any residual contamination.

The proposed response action is comprised primarily of construction activities which will require the use of heavy equipment for the excavation, consolidation, and capping of contaminated material. A minimum amount of road reconstruction within and outside the Site will be required for equipment access.

The extent of radionuclides contamination will be further delineated as necessary and contaminants will be quantified using EPA-approved methodologies. This effort will include field and lab analysis. Wastes that exceed the action levels will be safely removed and contained in the on-Site repository. Soil confirmation samples will be taken from the area where waste rock and native soil has been removed to ensure that the concentration of radium-226 in land averaged over the first 15 cm of soil below ground surface shall not exceed the background level by more than 5 picocuries per gram of radium-226.

The majority of the maintenance requirements for the evapotranspiration cover will take place during the first year after installation and have minimal ongoing maintenance once restoration measures on the cover have stabilized. Ongoing maintenance may include repair of erosion of the cap material, repair to drainage channels after heavy rainfall events, maintenance of vegetation coverage, and fence repairs.

All activities will be performed in conformance with standard health and safety practices that will be outlined in a Site-specific health & safety plan. Sampling and analysis activities will conform to EPA-approved methodologies and mandatory specifications for quality assurance and quality control activities.

All contaminated soils are proposed to be excavated, consolidated in the waste rock footprint, and capped with an evapotranspiration cover. Cleanup verification samples will be collected and analyzed after excavation of the visible, mining-impacted soils. The evapotranspiration cover will be engineered designed and constructed to provide superior protection for a long period of time. The ET cover stores and releases infiltrated precipitation such that there is no net flux of water through the soil layer.

Post-removal site control activities may include re-vegetation of approximately 35 acres within the waste rock area, including roads; installation of diversion channels up-gradient of the consolidation cell to control surface water; runoff protection on the ET cover; and installation of a 8-foot high chain link fence to enclose approximately 17 acres (necessary to exclude wildlife and livestock from consuming vegetation covering).

2. Contribution to remedial performance

The proposed response action is consistent with any long-term remedy: eliminating or reducing the ingestion, inhalation, dermal contact and surface water pathways. No further response action is anticipated at the Site. However, based upon available information, the present removal action will not impede or affect a future response action if one is deemed necessary.

3. Engineering Evaluation/Cost Analysis (EE/CA)

The Final EE/CA is included in the Administrative Record for the Site. The Technical Response to Comments (TRC), dated May 2010, is in Attachment 3. The TRC documents Forest Service responses to significant public comments received on the draft EE/CA report.

4. Applicable or relevant and appropriate requirements (ARARs)

Section 300.415(j) of the NCP requires that removal actions under CERCLA section 104 and pursuant to CERCLA section 106 attain applicable or relevant and appropriate requirements (ARARs) to the extent practicable considering the exigencies of the situation. ARARs may form the basis of removal action objectives for the Site. Finally, ARARs help agencies determine how "clean is clean" at a site and are a guide in remedy implementation.

ARARs are either applicable or relevant and appropriate. Applicable requirements are those cleanup standards, standards of control, or other substantive environmental protection requirements, criteria or limitations promulgated under federal or state environmental laws that specifically address a hazardous substance, pollutant, contaminant, cleanup action, location, or other circumstance found at a CERCLA site. Applicable requirements are those that an agency would have to comply with by law if the same action was taken using legal authorities other than CERCLA. Relevant and appropriate requirements are those cleanup standards that, while not applicable to a Site, address problems or situations sufficiently similar to those encountered at the site that their use is well suited to the particular site. Once the agency determines that a requirement is relevant and appropriate, then the agency must comply with the requirement to the same extent as if it were applicable.

State requirements may also be ARARs. In order for a state requirement to be an ARAR it must be promulgated, of general applicability, and legally enforceable. It must be more stringent than Federal requirements. The State must have identified the requirement in a timely manner.

There are three different types of ARARs: (1) chemical-specific, (2) location-specific, and (3) action-specific. Chemical-specific ARARs are typically health- or risk-based numerical values that represent cleanup standards. Location-specific ARARs are restrictions on the concentration of hazardous substances or the conduct of activities in environmentally sensitive areas. Action-specific ARARs are usually technology- or activity-based requirements or limitations on cleanup actions.

Sometimes there are no ARARs to serve as cleanup levels for a particular site or contaminant. In these situations, the agency may consider non-promulgated criteria, advisories, guidance, and proposed standards issued by Federal or State governments. This category of cleanup goals is called "to be considered" or TBCs. Agencies may rely on TBCs in making cleanup decisions, but TBCs are not potential ARARs because they are neither promulgated nor enforceable.

Agencies must comply only with the substantive portions of a given ARAR for CERCLA cleanups conducted entirely on-site. Agencies need not comply with administrative requirements such as obtaining a permit, record keeping, and reporting for on-site actions. "On-site" means the areal extent of the contamination and all suitable areas in very close proximity to the contamination necessary for implementation of the response action. Agencies must comply with both the substantive and administrative requirements of applicable laws and regulations for actions taken off-site.

Removal actions, as opposed to remedial actions, need only comply with ARARs to the extent practicable given the exigencies of the situation and the scope of the removal action. During most non-time critical removal actions, such as the one being contemplated for the San Mateo Uranium Mine Site, there is sufficient time to identify and evaluate ARARs. Only ARARs that address activities within the scope of the removal action need be considered. For example, ARARs pertaining to treatment of a contaminated ground water aquifer are outside the scope of a cleanup involving capping a waste pile.

ARARs for the San Mateo Uranium Mine Site

The proposed action shall attain ARARs under federal or state environmental or facility siting laws. Other federal and state advisories, criteria or guidance may, as appropriate, be considered in formulating the removal action. Appendix F-1, 2, and 3 of the EECA list the ARARs for the Site. Key ARARs are discussed below.

Key chemical-specific ARARs for the cleanup of the Site are the Uranium Mill Tailing Radiation Control Act (UMTRCA). These standards were developed under the UMTRCA to govern the stabilization, disposal, and control of uranium and thorium mill tailings on land and buildings that are part of a uranium or thorium processing site. Due to the similarities in the radiological and geochemical characteristics between mine wastes and tailings, this standard is relevant and appropriate to the proposed response action.

The proposed response action contemplates consolidating contaminated material and constructing an evapotranspiration cover on-Site. Historic features exist at the Site, therefore, the National Historic Preservation Act and related statutes are applicable. The Site has been surveyed for potential impacts on archeological, historic and cultural resources:

The proposed response action contemplates on-Site consolidation and capping. For these actions, the key action-specific ARARs include state requirements for the control of storm water and fugitive dust. Certain provisions of the State of New Mexico hazardous and solid waste regulations are relevant and appropriate.

5. Project Schedule

Removal Action activities, including acquiring access, design, and construction, are estimated to take 2 years. The construction is estimated to take 5 months. Prior to commencing construction activities, a health and safety plan and related pre-mobilization plans will be prepared. In addition, confirmation sampling and analysis will be done to ensure the RAOs are achieved.

B. Estimated Costs

The estimated cost for the proposed response action is estimated at \$2,451,000 plus an anticipated additional 10% to cover indirect and direct costs, 15% contingency, and \$32,000 (at 5% interest) in perpetuity for Operating and Maintenance. An environmental services contractor is required to implement this action. Annual monitoring and Operation and Maintenance costs are expected following implementation of the response action.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Given the Site conditions, the nature of the hazardous substances documented on Site, and the potential exposure pathways to recreationists and wildlife described in Sections III and IV above, actual or threatened releases of hazardous substances from the Site, if not addressed by implementing the response actions proposed in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

VII. OUTSTANDING POLICY ISSUES

No outstanding policy issues with the Site have been identified at this time.

VIII. ENFORCEMENT

Pursuant to CERCLA authorities, the Forest Service has identified United Nuclear Corporation, El Paso Natural Gas Company, Homestake, and Western Energy Development as potentially responsible parties ("PRPs") at the Site.

IX. RECOMMENDATION

This decision document represents a removal action for the San Mateo Uranium Mine Site, developed in accordance with CERCLA as amended, and not inconsistent with the NCP. This response action is

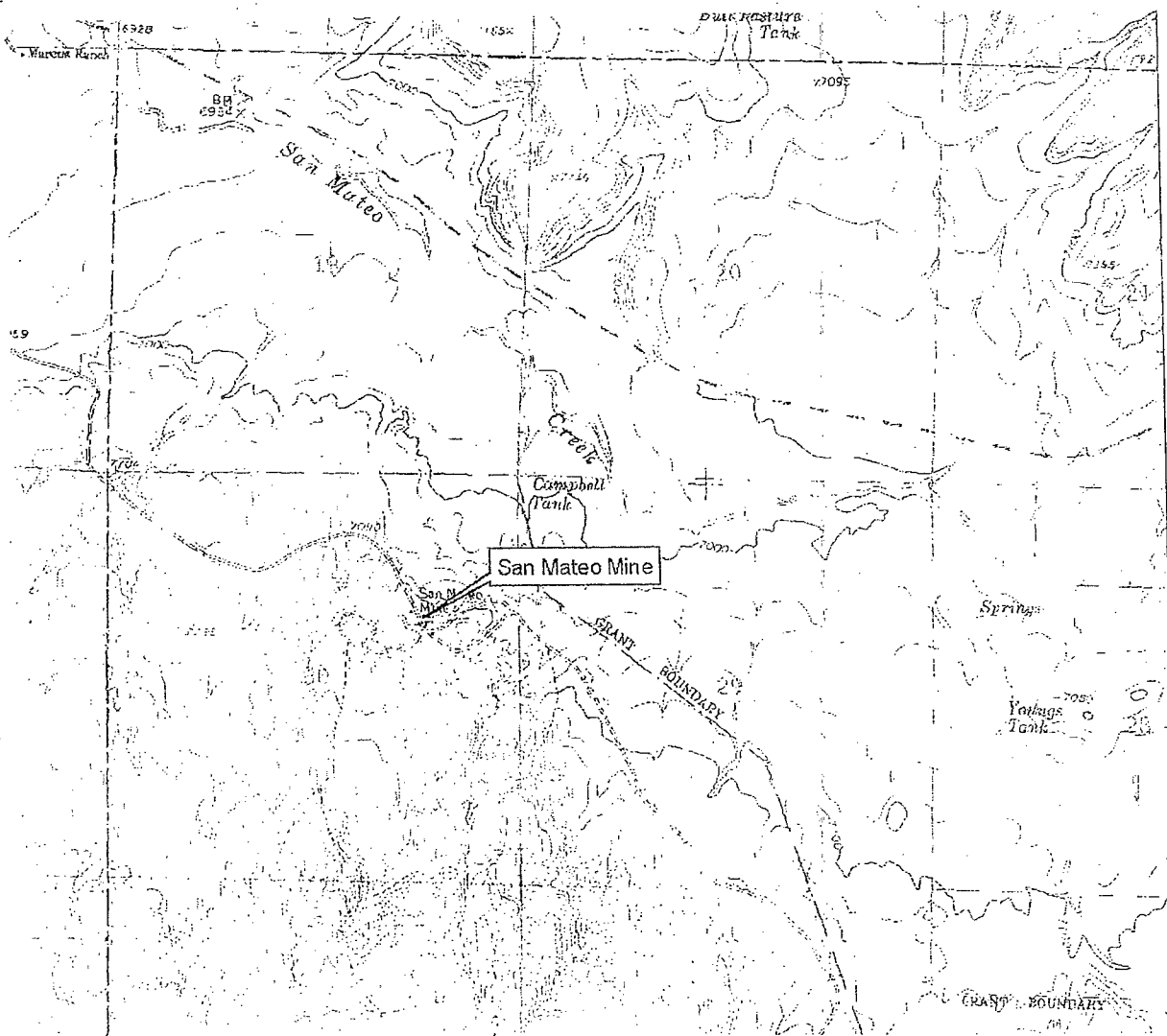
supported by the Administrative Record for the Site. Conditions at the Site meet the NCP criteria for a removal action under 40 C.F.R. § 300.415 (b) (2) pursuant to 42 U.S.C. § 9604(c) (1). I recommend your approval of the proposed removal action.

Recommended By: <i>Steven John McDonald</i>	Date: <i>4-15-2011</i>	Concur: <i>Matt Reidy</i>	Date: <i>4-18-2011</i>
STEVEN JOHN MCDONALD On-Scene Coordinator		MATT REIDY District Ranger	
Concur: <i>Nancy Rose</i>	Date: <i>4/18/11</i>	Concur: <i>Mary</i>	Date: <i>4/18/2011</i>
NANCY ROSE Forest Supervisor		MARIA A. McGAHA, P.E. Regional CERCLA Coordinator	
Concur: <i>D. B. Montoya</i>	Date: <i>4/18/11</i>	Approved By: <i>C. L. Newman Jr.</i>	Date: <i>4-18-11</i>
DANNY B. MONTOYA Regional Engineer		CORBIN NEWMAN, Jr. Regional Forester	

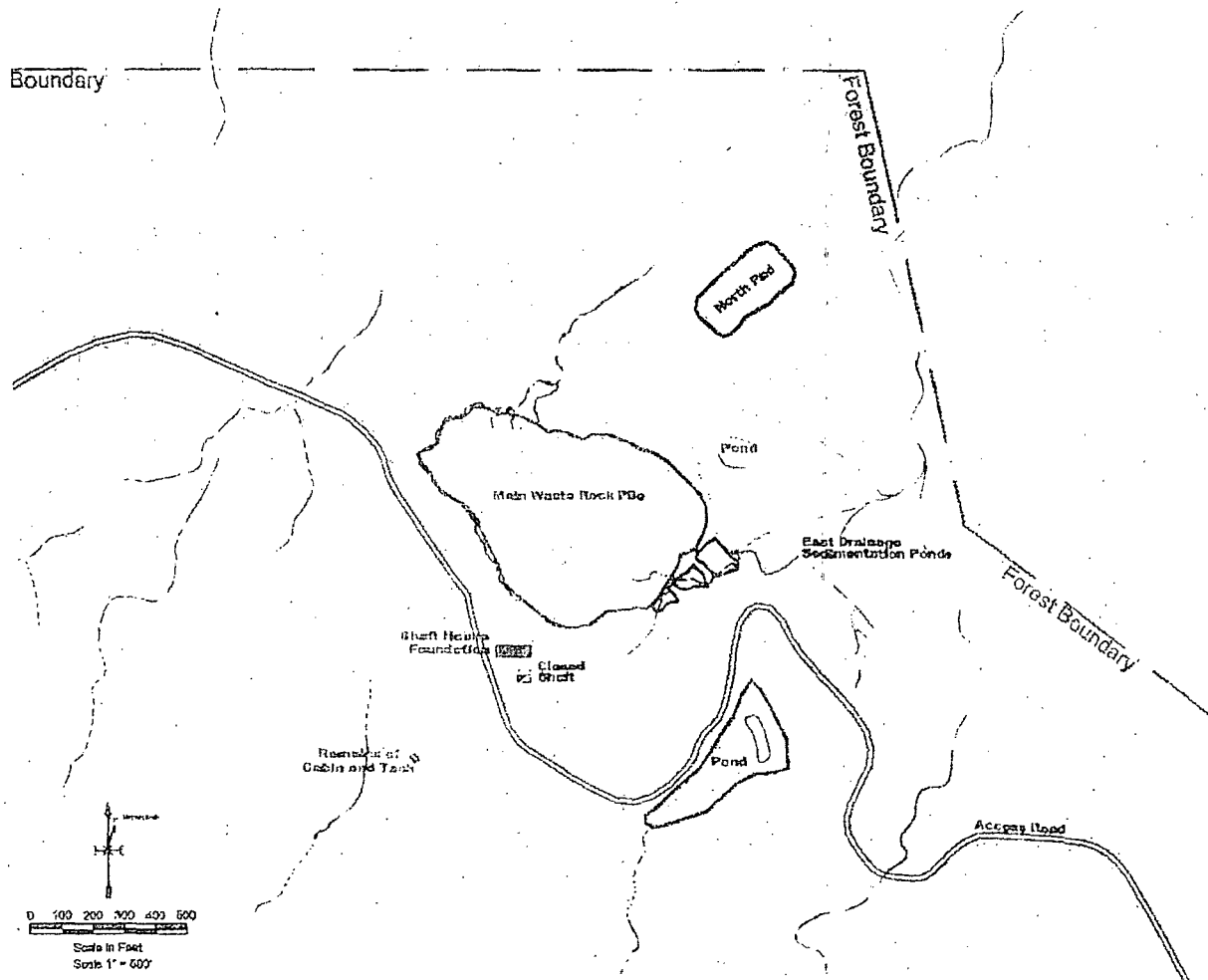
cc:

Steven John McDonald, New Mexico Statewide On-Scene Coordinator
 Matt Reidy Mt. Taylor District Ranger
 Mary Dereske, Cibola National Forest REALM Staff Officer
 Nancy Rose, Cibola National Forest Supervisor
 Diane Tafoya, Forest Geologist
 Maria McGaha, Regional Environmental Engineer
 Mary Ann Joca, USDA OGC Albuquerque
 Mike Hope, USDA OGC Denver
 Holly Fliniau, USDA EMD
 Kathleen Adam, WO Engineering
 San Mateo Mine Mailing List
 Administrative Record

ATTACHMENT 1 SITE LOCATION MAP



ATTACHMENT 2 MINE FEATURE MAP





Forest
Service

Southwestern Region
Regional Office

333 Broadway SE
Albuquerque, NM 87102
FAX (505) 842-3800
V/TTY (505) 842-3292

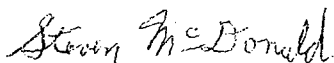
MAR 23 2011

Dear Interested Parties:

The U.S. Department of Agriculture, Forest Service (Forest Service), has been undertaking an investigation of the San Mateo Uranium Mine Site (the Site) pursuant to its authorities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 *et seq.* The Forest Service recognizes the importance of consulting with the state, the U.S. Fish and Wildlife Service, the Bureau of Indian Affairs, and all interested tribal representatives under CERCLA and the National Contingency Plan, 40 C.F.R. Part 300. In November 2009, we consulted with you regarding the Site. Beginning this spring, the Forest Service intends to perform a non-time-critical removal action (cleanup) at the Site.

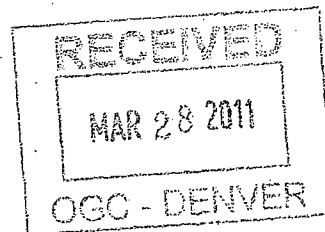
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Please be aware that, in order to address the major environmental problems at the Site, the Forest Service intends to issue a Unilateral Administrative Order (UAO) to the parties responsible for the contamination onsite under CERCLA §106 compelling responsible parties to conduct the cleanup. If you have any questions about the matters raised in this letter, please do not hesitate to call.



STEVEN MCDONALD
NM Statewide On-Scene Coordinator

cc: Mary Dereske, Matt Reidy, Cynthia Benedict, Michael A Linden, Nancy Rose, Mark M Chavez, Arnold Wilson, Maria A McGaha, William Medina, Danny R Montoya, Faye L Krueger, Leanne M Marten



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Dear Interested Parties Letter Mailing List:

Mr. Michael F. Abrams
U.S. Department of Energy, UMTRA Office
2155 Louisiana Blvd., NE, Suite 4000
Albuquerque, NM 87110

Chris Petersen
Deputy Associate Director
Superfund Division
EPA Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202

John Meyer
Chief, Risk & Site Assessment Team Leader
U.S. EPA Region 6 (6SF-TR)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202

U.S. Department of the Interior
Stephen Spencer
Office of Environmental Policy & Compliance
P.O. Box 26567 (MC-9)
Albuquerque, NM 87125-6567

Mr. David E. Mathes
U.S. Department of Energy
Kirtland AFB
Albuquerque, NM 87117

Ms. Marcy Leavitt
NMED/SWQB
1190 St. Francis Drive
Harold Runnels Building
Santa Fe, NM 87502

Mr. Bill Walker
Bureau of Indian Affairs
1001 Indian School Road NW
P.O. Box 26567
Albuquerque, NM 87125

Lance Hauer
Remedial Project Manager
General Electric
640 Freedom Business Center
King of Prussia, PA 19406

Mr. Bart Wilking P.E.
Manager Western Region
El Paso Corporation
Two North Nevada Ave.
P.O. Box 1087
Colorado Springs, CO 80903



United States
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333 Broadway SE
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File Code: 2160

Date: MAR 23 2011

Ms. Lisa Fisher
New Mexico Game and Fish
P.O. Box 11711
Albuquerque, NM 87110

Dear Ms. Fisher:

The U.S. Department of Agriculture, Forest Service (Forest Service), has been undertaking an investigation of the San Mateo Mine Site (the Site) pursuant to its authorities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 *et seq.* The Forest Service recognizes the importance of consulting with the state, the U.S. Fish and Wildlife Service, the Bureau of Indian Affairs, and all interested tribal representatives under CERCLA and the National Contingency Plan, 40 C.F.R. Part 300. In November 2009, we consulted with you regarding the Site. Beginning this spring, the Forest Service intends to perform a non-time-critical removal action (cleanup) at the Site.

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Sincerely,

STEVEN MCDONALD
NM Statewide On-Scene Coordinator

cc: Matt Reidy, Mary Dereske, Danny R Montoya, Maria A McGaha, William Medina, Nancy Rose





United States
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Southwestern Region
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333 Broadway SE
Albuquerque, NM 87102
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File Code: 2160

Date: MAR 23 2011

Ms. Lisa Price
Grants Mining District Coordinator
U.S. EPA Region 6 (6SF-TR)
1445 Ross Avenue; Suite 1200
Dallas, TX 75202

Dear Ms. Price:

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Sincerely,

STEVEN MCDONALD
NM Statewide On-Scene Coordinator

cc: Matt Reidy, Mary Dereske, Danny R Montoya, Maria A McGaha, William Medina, Nancy Rose





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File Code: 2160

Date: MAR 23 2011

Mr. William Fetner
State of New Mexico Office of the Natural Resources
Trustees
4910 Alameda Blvd, NE Suite A
Albuquerque, NM 87113-1736

Dear Mr. Fetner:

The U.S. Department of Agriculture, Forest Service (Forest Service), has been undertaking an investigation of the San Mateo Mine Site (the Site) pursuant to its authorities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 *et seq.* The Forest Service recognizes the importance of consulting with the state, the U.S. Fish and Wildlife Service, the Bureau of Indian Affairs, and all interested tribal representatives under CERCLA and the National Contingency Plan, 40 C.F.R. Part 300. In November 2009, we consulted with you regarding the Site. Beginning this spring, the Forest Service intends to perform a non-time-critical removal action (cleanup) at the Site.

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Sincerely,

STEVEN MCDONALD
NM Statewide On-Scene Coordinator

cc: Matt Reidy, Mary Dereske, Danny R Montoya, Maria A McGaha, William Medina, Nancy Rose





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333 Broadway SE
Albuquerque, NM 87102
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File Code: 2160

Date: MAR 23 2011

Ms. Mary Ann Menetrey
NMED GWQB
Mining Environmental Compliance
1190 St. Francis Drive
Harold Runnels Building
Santa Fe, NM 87502

Dear Ms. Menetrey:

The U.S. Department of Agriculture, Forest Service (Forest Service), has been undertaking an investigation of the San Mateo Mine Site (the Site) pursuant to its authorities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 *et seq.* The Forest Service recognizes the importance of consulting with the state, the U.S. Fish and Wildlife Service, the Bureau of Indian Affairs, and all interested tribal representatives under CERCLA and the National Contingency Plan, 40 C.F.R. Part 300. In November 2009, we consulted with you regarding the Site. Beginning this spring, the Forest Service intends to perform a non-time-critical removal action (cleanup) at the Site.

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Sincerely,

STEVEN MCDONALD
NM Statewide On-Scene Coordinator

cc: Matt Reidy, Mary Dereske, Danny R Montoya, Maria A McGaha, William Medina, Nancy Rose





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333 Broadway SE
Albuquerque, NM 87102
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File Code: 2160

Date: MAR 23 2011

Mr. Wally Murphy
Supervisor
New Mexico Ecological Services Field Office
U.S. Fish and Wildlife
2105 Osuna NE
Albuquerque, NM 87113

Dear Mr. Murphy:

The U.S. Department of Agriculture, Forest Service (Forest Service), has been undertaking an investigation of the San Mateo Mine Site (the Site) pursuant to its authorities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 *et seq.* The Forest Service recognizes the importance of consulting with the state, the U.S. Fish and Wildlife Service, the Bureau of Indian Affairs, and all interested tribal representatives under CERCLA and the National Contingency Plan, 40 C.F.R. Part 300. In November 2009, we consulted with you regarding the Site. Beginning this spring, the Forest Service intends to perform a non-time-critical removal action (cleanup) at the Site.

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STEVEN MCDONALD
NM Statewide On-Scene Coordinator

cc: Matt Reidy, Mary Dereske, Danny R Montoya, Maria A McGaha, William Medina, Nancy Rose





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333 Broadway SE
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File Code: 2160

Date: MAR 23 2011

Ms. Dana Bahar
NMED GWQB
Superfund Oversight
1109 St. Francis Drive
Runnels Building
Santa Fe, NM 87502

Dear Ms. Bahar:

The U.S. Department of Agriculture, Forest Service (Forest Service), has been undertaking an investigation of the San Mateo Mine Site (the Site) pursuant to its authorities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 *et seq.* The Forest Service recognizes the importance of consulting with the state, the U.S. Fish and Wildlife Service, the Bureau of Indian Affairs, and all interested tribal representatives under CERCLA and the National Contingency Plan, 40 C.F.R. Part 300. In November 2009, we consulted with you regarding the Site. Beginning this spring, the Forest Service intends to perform a non-time-critical removal action (cleanup) at the Site.

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STEVEN MCDONALD
NM Statewide On-Scene Coordinator

cc: Matt Reidy, Mary Dereske, Danny R Montoya, Maria A McGaha, William Medina, Nancy Rose





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File Code: 2160

Date: MAR 23 2011

Dr. Jeff Blythe
Tribal Historic Preservation Office
Jicarilla Apache Nation
P.O. Box 1367
Dulce, NM 87528

Dear Dr. Blythe:

The U.S. Department of Agriculture, Forest Service (Forest Service), has been undertaking an investigation of the San Mateo Mine Site (the Site) pursuant to its authorities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 *et seq.* The Forest Service recognizes the importance of consulting with the state, the U.S. Fish and Wildlife Service, the Bureau of Indian Affairs, and all interested tribal representatives under CERCLA and the National Contingency Plan, 40 C.F.R. Part 300. In November 2009, we consulted with you regarding the Site. Beginning this spring, the Forest Service intends to perform a non-time-critical removal action (cleanup) at the Site.

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Please be aware that, in order to address the major environmental problems at the Site, the Forest Service intends to issue a Unilateral Administrative Order (UAO) to the parties responsible for the contamination onsite under CERCLA §106 compelling responsible parties to conduct the cleanup. If you have any questions about the matters raised in this letter, please do not hesitate to call.

Sincerely,

STEVEN MCDONALD
NM Statewide On-Scene Coordinator

cc: Matt Reidy, Mary Dereske, Danny R Montoya, Maria A McGaha, William Medina, Nancy Rose





United States
Department of
Agriculture

Forest
Service

Southwestern Region
Regional Office

333 Broadway SE
Albuquerque, NM 87102
FAX (505) 842-3800
V/TTY (505) 842-3292

File Code: 2160

Date: MAR 23 2011

Governor Michael Toledo, Jr.
Pueblo of Jemez
P.O. Box 100
Jemez Pueblo, NM 87024

Dear Governor Toledo:

The U.S. Department of Agriculture, Forest Service (Forest Service), has been undertaking an investigation of the San Mateo Mine Site (the Site) pursuant to its authorities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 *et seq.* The Forest Service recognizes the importance of consulting with the state, the U.S. Fish and Wildlife Service, the Bureau of Indian Affairs, and all interested tribal representatives under CERCLA and the National Contingency Plan, 40 C.F.R. Part 300. In November 2009, we consulted with you regarding the Site. Beginning this spring, the Forest Service intends to perform a non-time-critical removal action (cleanup) at the Site.

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Sincerely,

STEVEN MCDONALD
NM Statewide On-Scene Coordinator

cc: Matt Reidy, Mary Dereske, Danny R Montoya, Maria A McGaha, William Medina, Nancy Rose, Chris Toya (Pueblo of Jemez)





United States
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Service

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333 Broadway SE
Albuquerque, NM 87102
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File Code: 2160

Date: MAR 23 2011

Governor Malcolm Montoya
Pueblo of Sandia
481 Sandia Loop Rd.
Bernalillo, NM 87004

Dear Governor Montoya:

The U.S. Department of Agriculture, Forest Service (Forest Service), has been undertaking an investigation of the San Mateo Mine Site (the Site) pursuant to its authorities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 *et seq.* The Forest Service recognizes the importance of consulting with the state, the U.S. Fish and Wildlife Service, the Bureau of Indian Affairs, and all interested tribal representatives under CERCLA and the National Contingency Plan, 40 C.F.R. Part 300. In November 2009, we consulted with you regarding the Site. Beginning this spring, the Forest Service intends to perform a non-time-critical removal action (cleanup) at the Site.

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Sincerely,

STEVEN MCDONALD
NM Statewide On-Scene Coordinator

cc: Matt Reidy, Mary Dereske, Danny R Montoya, Maria A McGaha, William Medina, Nancy Rose, Frank Chaves (Pueblo of Sandia)





United States
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Service

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Albuquerque, NM 87102
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File Code: 2160

Date: MAR 23 2011

Mr. Leigh Kuwanwisiwman, Director
Cultural Preservation Office
The Hopi Tribe
P.O. Box 123
Kykotsmovi, AZ 86039

Dear Mr. Kuwanwisiwman:

The U.S. Department of Agriculture, Forest Service (Forest Service), has been undertaking an investigation of the San Mateo Mine Site (the Site) pursuant to its authorities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 *et seq.* The Forest Service recognizes the importance of consulting with the state, the U.S. Fish and Wildlife Service, the Bureau of Indian Affairs, and all interested tribal representatives under CERCLA and the National Contingency Plan, 40 C.F.R. Part 300. In November 2009, we consulted with you regarding the Site. Beginning this spring, the Forest Service intends to perform a non-time-critical removal action (cleanup) at the Site.

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Sincerely,

STEVEN MCDONALD
NM Statewide On-Scene Coordinator

cc: Matt Reidy, Mary Dereske, Danny R Montoya, Maria A McGaha, William Medina, Nancy Rose





United States
Department of
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Service

Southwestern Region
Regional Office

333-Broadway SE
Albuquerque, NM 87102
FAX (505) 842-3800
V/TTY (505) 842-3292

File Code: 2160

Date: MAR 23 2011

Governor Randall Vicente
Pueblo of Acoma
P.O. Box 309
Acoma, NM 87034

Dear Governor Vicente:

The U.S. Department of Agriculture, Forest Service (Forest Service), has been undertaking an investigation of the San Mateo Mine Site (the Site) pursuant to its authorities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 *et seq.* The Forest Service recognizes the importance of consulting with the state, the U.S. Fish and Wildlife Service, the Bureau of Indian Affairs, and all interested tribal representatives under CERCLA and the National Contingency Plan, 40 C.F.R. Part 300. In November 2009, we consulted with you regarding the Site. Beginning this spring, the Forest Service intends to perform a non-time-critical removal action (cleanup) at the Site.

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Sincerely,

STEVEN MCDONALD
NM Statewide On-Scene Coordinator

cc: Matt Reidy, Mary Dereske, Danny R Montoya, Maria A McGaha, William Medina, Nancy Rose, Theresa Pasqual (Pueblo of Acoma Director)





United States
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Service

Southwestern Region
Regional Office

333 Broadway SE
Albuquerque, NM 87102
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V/TTY (505) 842-3292

File Code: 2160

Date: MAR 23 2011

Governor Richard Luarkie
Pueblo of Laguna
P.O. Box 194
Laguna Pueblo, NM 87026

Dear Governor Luarkie:

The U.S. Department of Agriculture, Forest Service (Forest Service), has been undertaking an investigation of the San Mateo Mine Site (the Site) pursuant to its authorities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 *et seq.* The Forest Service recognizes the importance of consulting with the state, the U.S. Fish and Wildlife Service, the Bureau of Indian Affairs, and all interested tribal representatives under CERCLA and the National Contingency Plan, 40 C.F.R. Part 300. In November 2009, we consulted with you regarding the Site. Beginning this spring, the Forest Service intends to perform a non-time-critical removal action (cleanup) at the Site.

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Sincerely,

STEVEN MCDONALD
NM Statewide On-Scene Coordinator

cc: Matt Reidy, Mary Dereske, Danny R Montoya, Maria A McGaha, William Medina, Nancy Rose





United States
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Agriculture

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Service

Southwestern Region
Regional Office

333 Broadway SE
Albuquerque, NM 87102
FAX (505) 842-3800
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File Code: 2160

Date: MAR 23 2011

Governor Arlen Quetawki, Sr.
Pueblo of Zuni
P.O. Box 339
Zuni, NM 87327

Dear Governor Quetawki:

The U.S. Department of Agriculture, Forest Service (Forest Service), has been undertaking an investigation of the San Mateo Mine Site (the Site) pursuant to its authorities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 *et seq.* The Forest Service recognizes the importance of consulting with the state, the U.S. Fish and Wildlife Service, the Bureau of Indian Affairs, and all interested tribal representatives under CERCLA and the National Contingency Plan, 40 C.F.R. Part 300. In November 2009, we consulted with you regarding the Site. Beginning this spring, the Forest Service intends to perform a non-time-critical removal action (cleanup) at the Site.

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Sincerely,

STEVEN MCDONALD
NM Statewide On-Scene Coordinator

cc: Matt Reidy, Mary Dereske, Danny R Montoya, Maria A McGaha, William Medina, Nancy Rose, Kurt Dongoske (Zuni HHPO Director)





United States
Department of
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Forest
Service

Southwestern Region
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333 Broadway, SE
Albuquerque, NM 87102
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V/TTY (505) 842-3292

File Code: 2160

Date: MAR 23 2011

Mr. Tony Joe, Jr.
Navajo Nation Historic Preservation Dept.
Traditional Cultural Program
P.O. Box 4950
Window Rock, AZ 86515

Dear Mr. Joe:

The U.S. Department of Agriculture, Forest Service (Forest Service), has been undertaking an investigation of the San Mateo Mine Site (the Site) pursuant to its authorities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 *et seq.* The Forest Service recognizes the importance of consulting with the state, the U.S. Fish and Wildlife Service, the Bureau of Indian Affairs, and all interested tribal representatives under CERCLA and the National Contingency Plan, 40 C.F.R. Part 300. In November 2009, we consulted with you regarding the Site. Beginning this spring, the Forest Service intends to perform a non-time-critical removal action (cleanup) at the Site.

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Sincerely,

STEVEN MCDONALD
NM Statewide On-Scene Coordinator

cc: Matt Reidy, Mary Dereske, Danny R Montoya, Maria A McGaha, William Medina, Nancy Rose



San Mateo Mine Site
Administrative Record Table

Doc. No.	Date	Title	Author	Recipient	Location
134	April 25, 2011	Cover Letter for Removal Action Approval Memorandum	Maria McGaha USDA Forest Service	Residents and Interested Parties	Admin. Record
133	April 18, 2011	Removal Action Approval Memorandum	USDA Forest Service	Regional Forester	Admin. Record
132	April 5, 2011	Technical Response to Comments	USDA Forest Service		Admin. Record
131	Mar. 23, 2011	Notice of Intent to Issue Unilateral Administrative Order	Steven McDonald, USDA Forest Service	See Mailing List	Admin. Record
130	Sept. 22, 2010	Final EE/CA	Science Applications International Corporation	William Medina, USDA Forest Service	Files
129	Feb 11, 2010	Conceptual Cover Profile Evaluation	Stephen Dwyer on behalf of United Nuclear Corporation and El Paso Natural Gas Company	Steven McDonald, USDA Forest Service	Admin. Record
128	Feb 11, 2010	Comments on Draft EE/CA	Bart Wilking El Paso Natural Gas Company	Steven McDonald, USDA Forest Service	Admin. Record
127	Feb 11, 2010	Comments on Draft EE/CA	Roger Florio General Electric On behalf of United Nuclear Corporation	Steven McDonald, USDA Forest Service	Admin. Record
126	Feb 4, 2010	Comments on Draft EE/CA	Floyd Lee	Matt Reidy District	Admin. Record

San Mateo Mine Site
Administrative Record Table

Doc. No.	Date	Title	Author	Recipient	Location
				Ranger	
125	Feb. 4, 2010	Response to 104 (e) Request for Information	Pamela Klessig Western Energy Development Corporation	Steven McDonald, USDA Forest Service	Admin. Record
124	Jan. 13, 2010	Request for Information Pursuant to CERCLA Section 104 (e)	Corbin Newman Regional Forester USDA Forest Service	Western Energy Development Corporation c/o Thomas Erwin	Admin. Record
123	Dec. 16, 2009	Comments on Draft EE/CA	Diane Schmitt	Steven McDonald	Admin. Record
122	Dec. 14, 2009	Comments on Draft EE/CA	Hal Pos Parsons Behle & Latimer for Homestake	Corbin Newman Regional Forester	Admin. Record
121	Dec. 9, 2009	Comments on Draft EE/CA	Georgia Cleverley NMED	Corbin Newman Regional Forester	Admin. Record
120	Nov 30, 2009	Comments on Draft EE/CA	Leigh Kuwanwisiwma Hopi Tribe	Corbin Newman Regional Forester	Admin. Record
119	Nov. 23, 2009	Newspaper Legal Notice of EE/CA Availability for Comments	USDA Forest Service	Albuquerque Journal, Gallup Independent, Farmington Daily Times	Admin. Record
118	Nov. 2, 2009	Letter Notice of EE/CA Availability for Comments	USDA Forest Service	See Mailing List	Admin Record

San Mateo Mine Site
Administrative Record Table

Doc. No.	Date	Title	Author	Recipient	Location
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117	Oct. 27, 2009	Designation of Spokespersons	Nancy Rose Forest Supervisor USDA Forest Service	Mark Chavez & Matt Reidy USDA Forest Service	Admin Record
116	August 2009	Fact Sheet San Mateo Mine Site	Science Applications International Corporation	Steven McDonald, USDA Forest Service	Admin Record
115	October, 2008	Gamma Walkover Survey Plan	Science Applications International Corporation	Steven McDonald, USDA Forest Service	Admin. Record
114	July 18, 2008	Designation of On-Scene Coordinator	Corbin Newman Regional Forester	Steven McDonald, USDA Forest Service	Admin. Record
113	Dec 13, 2007	Final Work Plan	Science Applications International Corporation	Steven McDonald, USDA Forest Service	Admin. Record
112	Dec 13, 2007	Final Health and Safety Plan	Science Applications International Corporation	Steven McDonald, USDA Forest Service	Admin. Record

111	Dec 13, 2007	Final Field Sampling & Analysis Plan And Quality Assurance Plan	Science Applications International Corporation	Steven McDonald, USDA Forest Service	Files
110	Sept. 7, 2001	Designation of On-Scene Coordinator	Regional Forester	Marcia Miolano, P.E.	Admin Record
109	Mar. 31, 2000	Appointment of Authorized Representative	James T. Gladen for Eleadnor S. Towns, Regional	Marcia Miolano, P.E. - USDA	Admin Record

San Mateo Mine Site
Administrative Record Table

Doc. No.	Date	Title	Author	Recipient	Location
		of On-Scene Coordinator	Forester and Maria McGaha, P.E., On-Scene Coordinator - USDA Forest Service	Forest Service	
108	Sept. 1, 1999	Designation of On-Scene Coordinator	Regional Forester	Maria McGaha, P.E.	Admin Record
107	Sept. 19, 1997	Response to FOIA request	Gretchen Barkman, On-Scene Coordinator	Etta Litterini. Cigna Property & Casualty	Admin. Record
106	Sept. 13, 1997	FOIA request	Etta Litterini, Cigna Property & Casualty	Gretchen Barkman, On-Scene Coordinator	Admin. Record
105	Sept. 8, 1997	Response to request for documents	Gretchen Barkman, On-Scene Coordinator	Deborah J. Crabb. Gibson Dunn & Crutcher	Admin. Record
104	Aug. 27, 1997	Response to FOIA request	Gretchen Barkman, On-Scene Coordinator	Deborah J. Crabb. Gibson Dunn & Crutcher	Admin. Record
103	Aug. 22, 1997	FOIA request	Deborah J. Crabb. Gibson, Dunn & Crutcher LLP	Gretchen Barkman, On-Scene Coordinator	Admin. Record
102	Aug. 22, 1997	Letter in response to July 19 th letter	Robert C. Davis, Jr. Crowell & Moring LLP	Steve Silverman. OGC, USDA	Admin. Record
101	Aug. 20, 1997	Response to 104 (e) Request for Information	Mary E. Kipp. El Paso Energy	Gretchen Barkman, On-Scene Coordinator	Admin. Record

San Mateo Mine Site
Administrative Record Table

Doc. No.	Date	Title	Author	Recipient	Location
100	Aug. 12, 1997	Response to 104 (e) Request for Information	Ralph G. Lightner. Department of Energy	Gretchen Barkman On-Scene Coordinator	Admin. Record
99	Aug. 1, 1997	Response to 104 (e) Request for Information	Juan Velasquez. United Nuclear Corporation	Gretchen Barkman, On-Scene Coordinator	Admin. Record
98	July 19, 1997	Letter in response to July 3 rd , letter	Steve Silverman. OGC USDA	Robert C. Davis Jr. Representing Homestake Mining	Admin. Record
97	July 11, 1997	Time Extension to Reply to June 12 104 (e), Request for Information	Roberta Miller Baca, Regional Environmental Engineer USDA Forest Service	Juan R. Velasquez, United Nuclear Corporation	Admin. Record
96	July 9, 1997	Request for Information Pursuant to CERCLA Section 104 (e)	Charles W. Cartwright, Jr., Regional Forester, USDA Forest Service	Thomas Crandall US DOE	Admin. Record
95	July 3, 1997	Letter in response to June 12 th letter	Robert C. Davis, Jr., representing Homestake Mining	Charles W. Cartwright Jr., Regional Forester USDA Forest Service	Admin. Record
94	June 12, 1997	Request for Information Pursuant to Section 104 (e), 42 USC 9604 (e) of CERCLA	Regional Forester, USDA Forest Service	Christopher Thorne, El Paso Natural Gas	Admin. Record
93	June 12, 1997	Request for	Regional	Jayme Boone	Admin. Record

San Mateo Mine Site
Administrative Record Table

Doc. No.	Date	Title	Author	Recipient	Location
		Information Pursuant to Section 104 (e), 42 USC 9604 (e) of CERCLA	Forester, USDA Forest Service	Ward. El Paso Natural Gas	
92	June 12, 1997	Request for Information Pursuant to Section 104 (e), 42 USC 9604 (e) of CERCLA	Regional Forester USDA Forest Service	United Nuclear Corporation, c/o Dalva L. Moellenberg. Gallagher & Kennedy, PA	Admin. Record
91	June 12, 1997	Request for Information Pursuant to Section 104 (e), 42 USC 9604 (e) of CERCLA	Regional Forester, USDA Forest Service	Homestake Mining Co, c/o Robert C. Davis. Crowell & Moring	Admin. Record
90	June 12, 1997	Request for Information Pursuant to Section 104 (e), 42 USC 9604 (e) of CERCLA	Regional Forester USDA Forest Service	Harold Barnes, Homestake Mining Co.	Admin. Record
89	June 12, 1997	Request for Information Pursuant to Section 104 (e), 42 USC 9604 (e) of CERCLA	Regional Forester USDA Forest Service	Juan R. Velasquez, United Nuclear Corporation	Admin. Record
88	May 23, 1997	Report from site visit	John E. Burghardt. Geologic Resources Division, National Park Service	Diann Gese. Geologist, US Forest Service	Admin. Record
87	May 22, 1997	Report from site	Robert Higgins,	Bobbi Baca,	Admin. Record

San Mateo Mine Site
Administrative Record Table

Doc. No.	Date	Title	Author	Recipient	Location
		visit	Geologic Resources Division, NPS	USDA Forest Service	
86	April 3, 1997	Transmittal letter Action and Approval Memorandum	Roberta Miller Baca, Regional Environmental Engineer	Maura Hanning, Superfund Section NMED	Admin. Record
85	April 3, 1997	Transmittal letter, Action and Approval Memorandum	Roberta Miller Baca, Regional Environmental Engineer	Donald H. Williams, EPA R-6 Superfund Section	Admin. Record
84	Mar. 28, 1997	Designation of On-Scene Coordinator	Regional Forester USDA Forest Service	Gretchen Barkman, Santa Fe National Forest	Admin. Record
83	Feb. 26, 1997	Action and Approval Memorandum	Regional Forester, USDA Forest Service	Supervisor, Cibola National Forest	Admin. Record
82	Nov. 8, 1996	NMED's response to ARAR request	Regional Engineer USDA Forest Service	Forest Supervisor, Cibola National Forest	Admin. Record
81	Nov. 5, 1996	Designation of Spokesperson	Forest Supervisor, Cibola National Forest	Karen Carter, Cibola National Forest	Admin. Record
80	May 30, 1996	Designation of On-Scene Coordinator	Regional Forester USDA Forest Service	Christine Adam, Cibola National Forest	Admin. Record
79	May 23, 1996	Letter with	Jayme Boone	Chuck	Admin. Record

San Mateo Mine Site
Administrative Record Table

Doc. No.	Date	Title	Author	Recipient	Location
		comments to letter of April 25 th	Ward, El Paso Natural Gas	Hagerdon, Ranger, Mt. Taylor District, Cibola NF	
78	Apr. 25, 1996	Letter to interested publics	Chuck Hagerdon, Ranger, Mt. Taylor Ranger District, Cibola, National Forest	Mailing list attached	Admin Record
77	Apr. 5, 1996	Letter requesting ARARs	Charles W. Cartwright Jr., Regional Forester, USDA Forest Service	Maura Hanning NMED	Admin. Record
76	Apr. 5, 1996	Letter Requesting ARARs	Charles W. Cartwright Jr., Regional Forester USDA Forest Service	Superfund Programs Branch, US EPA R-6	Admin. Record
75	Feb. 1, 1996	Letter regarding participation in CERCLA response	Juan R. Velasquez, United Nuclear Corporation	Regional Forester, USDA Forest Service	Admin. Record
74	Jan. 31, 1996	Letter responding to letter of Oct. 18, 1995	Jayne Boone Ward. El Paso Natural Gas	Regional Forester USDA Forest Service	Admin. Record
73	Jan. 25, 1996	Letter responding to letter of Oct. 18, 1995	Thomas M. Crandall, DOE	Regional Forester USDA Forest Service	Admin Record
72	Dec. 20, 1995	Letter confirming time extension	Regional Forester, USDA Forest Service	Jayne Boone Ward, El Paso Natural Gas	Admin. Record
71	Dec. 20, 1995	Letter	Regional	Michael F.	Admin. Record

San Mateo Mine Site
Administrative Record Table

Doc. No.	Date	Title	Author	Recipient	Location
		confirming time extension	Forester, USDA Forest Service	Abrams, DOE	
70	Dec. 20, 1995	Letter confirming time extension	Regional Forester USDA Forest Service	Robert C. Davis, Jr., Crowell & Moring	Admin. Record
69	Dec. 20, 1995	Letter confirming time extension	Regional Forester, USDA Forest Service	Dalva L. Moellenberg, Gallagher & Kennedy, PA	Admin. Record
68	Dec. 20, 1995	Letter confirming time extension	Regional Forester, USDA Forest Service	Juan R. Velasquez, United Nuclear Corporation	Admin. Record
67	Dec. 20, 1995	Letter confirming time extension	Regional Forester USDA Forest Service	Christopher Thorne. Gibson, Dunn & Crutcher	Admin. Record
66	Dec. 15, 1995	Letter confirming time extension	Christopher Thorne, representing El Paso Natural Gas	Bobbi Baca USDA Forest Service	Admin. Record
65	Dec. 15, 1995	Letter confirming time extension	Dalva L. Moellenberg, representing United Nuclear Corporation	Bobbi Baca, USDA Forest Service	Admin. Record
64	Nov. 15, 1995	Letter confirming telephone conversation requesting time extension	Jayne Boone Ward, El Paso Natural Gas	Regional Forester USDA Forest Service	Admin. Record
63	Nov. 15, 1995	Letter confirming	Juan R. Velasquez,	Regional Forester	Admin. Record

San Mateo Mine Site
Administrative Record Table

Doc. No.	Date	Title	Author	Recipient	Location
		telephone conversation requesting time extension	United Nuclear Corporation	USDA Forest Service	
62	Oct. 18, 1995	Letter repeating requests made in letter dated Apr. 1, 1994	Regional Forester USDA Forest Service	Jayne Boone Ward, El Paso Natural Gas	Admin. Record
61	Oct. 18, 1995	Letter repeating requests made in letter Apr. 1, 1994	Regional Forester USDA Forest Service	Michael F. Abrams, DOE	Admin. Record
60	Oct. 18, 1995	Letter repeating requests made in letter Apr. 1, 1994	Regional Forester USDA Forest Service	Juan R. Velasquez, United Nuclear Corporation	Admin. Record
59	Oct. 18, 1995	Letter repeating request made in letter Apr. 1, 1994	Regional Forester USDA Forest Service	Harold F. Barnes, Homestake Mining Co.	Admin. Record
58	Oct. 16, 1995	Response to FOIA request	Dale J. Fabian USDA Forest Service	Pete Rung, Weston, Inc.	Admin. Record
57	Sept. 26, 1995	Response to FOIA request	Dale J. Fabian USDA Forest Service	Kimber Scott USF&G	Admin. Record
56	Sept. 14, 1995	FOIA request	Kimber Scott USF&G	Chuck Sheldon, USDA Forest Service	Admin. Record
55	Sept. 6, 1995	Meeting summary		Files	Admin. Record
54	Aug. 31, 1995	Letter Responding to July 28 th	David E. Mathes, DOE	Regional Forester USDA Forest	Admin. Record

San Mateo Mine Site
Administrative Record Table

Doc. No.	Date	Title	Author	Recipient	Location
		invitation		Service	
53	Aug. 30, 1995	Response to FOIA request dated Aug. 17 th	Dale Fabian, USDA Forest Service	Christopher Thorne. Gibson, Dunn & Crutcher	Admin. Record
52	Aug. 25, 1995	FOIA request	USF&G	USDA Forest Service	Admin. Record
51	July 28, 1995	Letter of invitation to a meeting	Regional Forester SW Region, USDA Forest Service	Jayme Boone Ward, El Paso Natural Gas	Admin. Record
50	July 28, 1995	Letter of Invitation to a meeting	Regional Forester SW Region, USDA Forest Service	David E. Mathes, DOE	Admin. Record
49	July 28, 1995	Letter of invitation to a meeting	Regional Forester SW Region, USDA Forest Service	Harold F. Barnes Homestake Mining Co.	Admin. Record
48	July 28, 1995	Letter of invitation to a meeting	Regional Forester SW Region, USDA Forest Service	Juan jR. Velasquez. United Nuclear Corporation	Admin. Record
47	July 20, 1995	Letter documenting meeting	Terry Harwood, USDA Forest Service	David Mathes, DOE	Admin. Record
46	July 12, 1995	Letter responding to June 2 nd letter	Jayme Boone Ward, El Paso Natural Gas	Steve Kluge, Cibola USDA Forest Service	Admin. Record
45	July 11, 1995	Letter repeating requests	Regional Forester SW Region, USDA Forest Service	Harold F. Barnes, Homestake Mining Co.	Admin. Record

San Mateo Mine Site
Administrative Record Table

Doc. No.	Date	Title	Author	Recipient	Location
44	June 28, 1995	Letter in response to May 24 th letter	James M. Owendoff, DOE	Regional Forester SW Region, USDA Forest Service	Admin. Record
43	June 26, 1995	Letter in response to May 23 rd letter	Juan R. Velasquez, United Nuclear Corporation	Regional Forester SW Region, USDA Forest Service	Admin. Record
42	June 23, 1995	Re: San Mateo Uranium Mine, Mt. Taylor Ranger District, Cibola National Forest	Harold F. Barnes, P.E., C.S.P, Director-Environmental, Health, Safety & Gov't Affairs - Homestake	Charles W. Cartwright, Jr., Regional Forester	Admin Record
41	June 6, 1995	Designation of Kathleen Adam as On-Scene Coordinator	Regional Forester SW Region, USDA Forest Service	Files	Admin. Record
40	June 2, 1995	Letter repeating requests in April 1, 1994 letter	Regional Forester SW Region, USDA Forest Service	Jayme Boone Ward, El Paso Natural Gas	Admin. Record
39	June 2, 1995	Letter repeating requests in April 1, 1994 letter	Regional Forester SW Region, USDA Forest Service	Harold F. Barnes, Homestake Mining Co.	Admin. Record
38	May 24, 1995	Letter inviting participation in CERCLA action at the San Mateo Mine	Regional Forester SW Region, USDA Forest Service	Roger P. Whitfield, US DOE	Admin. Record
37	May 23, 1995	Letter repeating requests in	Regional Forester SW Region,	Juan R. Velasquez,	Admin Record

San Mateo Mine Site
Administrative Record Table

Doc. No.	Date	Title	Author	Recipient	Location
		April 1, 1994 letter	USDA Forest Service	United Nuclear Corporation	
36	July 18, 1994	Letter referring to United Nuclear's letter of July 5 th	Harold F. Barnes, Homestake Mining Co.	Jeanine Derby, Forest Supervisor, Cibola NF	Admin. Record
35	July 5, 1994	Letter responding to April 1 st letter	Juan R. Velasquez, United Nuclear Corporation	Forest Supervisor, Cibola, NF	Admin. Record
34	June 30, 1994	Letter responding to March 21 st letter	Jayne Boone Ward, El Paso Natural Gas	Jerry D. Bowser, USDA Forest Service	Admin. Record
33	June 29, 1994	Letter with copies of two old files	Jeanine A. Derby, Forest Supervisor, Cibola, NF	Juan R. Velasquez, United Nuclear Corporation	Admin. Record
32	June 28, 1994	Letter with copies of two old files	Jeanine A. Darby, Forest Supervisor Cibola NF	Jayne Boone Ward, El Paso Natural Gas	Admin. Record
31	June 24, 1994	Letter with copies of two old files	Jeanine A. Darby, Forest Supervisor, Cibola NF	Juan R. Velasquez, United Nuclear Corporation	Admin. Record
30	May 26, 1994	Letter with time extension	Jerry Bowser, Regional Engineer USDA Forest Service	Jayne Boone Ward, El Paso Natural Gas	Admin. Record
29	May 25, 1994	Letter with time extension	Jerry Bowser, Regional Engineer, USDA Forest Service	Juan R. Velasquez, United Nuclear	Admin. Record

San Mateo Mine Site
Administrative Record Table

Doc. No.	Date	Title	Author	Recipient	Location
				Corporation	
28	May 23, 1994	Letter requesting time extension	Jayne Boone Ward, El Paso Natural Gas	Roberta Baca, Regional Environmental & Dams Engineer, USDA Forest Service	Admin. Record
27	May 12, 1994	Letter with a FOIA request	Jayne Boone Ward, El Paso National Gas	Steve Kluge, OSC Cibola NF	Admin. Record
26	Apr. 28, 1994	Letter requesting access to files	Juan R. Velasquez, United Nuclear Corporation	Steve Kluge, OSC, Cibola NF	Admin. Record
25	Apr. 22, 1994	Letter regarding Correspondence	Harold F. Barnes, Homestake Mining Co.	Jeanine A. Derby, Forest Supervisor, Cibola NF	Admin. Record
24	Apr. 18, 1994	Letter regarding PRP Meeting	Jeanine Derby, Forest Supervisor, Cibola NF	Fred Craft, Homestake Mining Co.	Admin. Record
23	Apr. 13, 1994	Letter referring to Mar. 21 st letter	Jayne Boone Ward, El Paso Natural Gas	Jerry Bowser, USDA Forest Service	Admin. Record
22	Apr. 1, 1994	Letter notifying of CERCLA action initiated at San Mateo Mine	Jerry Bowser, Regional Engineer, USDA Forest Service	United Nuclear Corporation	Admin. Record
21	Mar. 29, 1994	Letter responding to letter dated Mar. 10, 1994	Harold F. Barnes, Homestake Mining Co.	Mr. Jerry Boswer, USDA Forest Service	Admin. Record

San Mateo Mine Site
Administrative Record Table

Doc. No.	Date	Title	Author	Recipient	Location
20	Mar. 21, 1994	Letter notifying of CERCLA action initiated at San Mateo Mine	Jerry Bowser, Regional Engineer, USDA Forest Service	Mr. Jayme Boone Ward, El Paso Natural Gas Co.	Admin. Record
19	Mar. 10, 1994	Letter notifying of CERCLA action initiated at San Mateo Mine	Jerry Bowser, Regional Engineer, USDA Forest Service	Mr. Fred Craft, Homestake Mining Co.	Admin. Record
18	Feb. 25, 1994	List of Potential Responsible parties	USDA Forest Service	Files	Admin. Record
17	Feb 16, 1994	Letter with notes & comments on December 1993 inspection report	Henry D. May, Radiation Representative, US EPA R6	Mr. Harry Kringler, USDA Forest Service	Admin. Record
16	Jan. 1994	San Mateo Mine Site Investigation	SAIC	USDA Forest Service	Project File
15	Aug. 6, 1993	Data Package	Enseco	SAIC	Admin. Record
14	July 28, 1993	Data Package	Enseco	SAIC	Admin. Record
13	Sept. 15, 1992	Letter regarding San Mateo Mine, Statement of Work, Follow up site investigation	J. Roy Carson, Acting Forest Supervisor	Regional Forester, SW Region USDA Forest Service	Admin. Record

San Mateo Mine Site
Administrative Record Table

Doc. No.	Date	Title	Author	Recipient	Location
12	July 24, 1989	Letter regarding the listing of San Mateo Mine on the Federal Facilities Compliance Program Docket	Richard M. Pederson, USDA Forest Service, R3	Forest Supervisor, Cibola NF	Admin. Record
11	May 30, 1989	Site Investigation of the San Mateo Mine	Andrew G. Raby, Geologist R2 USDA Forest Service	Files	Admin. Record
10	May 23, 1989	Letter with information on the San Mateo Mine	Virginia T. McLemore, New Mexico Bureau of Mines & Mineral Resources	Glen Rabe, USDA Forest Service	Admin. Record
9	Jan. 31, 1989	Letter with information on UNC San Mateo Mine	H.J. Parr, Chief, Superfund Cost Recovery Section, US EPA R6	Mr. Pete Peters, USDA Forest Service	Admin. Record
8	July 8, 1988	Letter with Site Discovery & Preliminary Assessment for UNC San Mateo Mine	Steve Cary, Program Manager, Superfund Section, Hazardous Waste Bureau, NM EID	Mark Satterwhite, US EPA, R6	Admin. Record
7	Sept. 1986	"Impacts of the Uranium Mining on Surface and Shallow Ground Waters..."	Bruse M. Gallaher & Steven J. Cary	Unknown	Admin. Record
6	Jan. 30, 1980	Report from site visit to San	Unknown	Unknown	Admin. Record

San Mateo Mine Site
Administrative Record Table

Doc. No.	Date	Title	Author	Recipient	Location
		Mateo Mine			
5	Unknown	Description of San Mateo Mine	Unknown	Unknown	Admin. Record
4	1969	Uranium Deposits by County in Northwestern New Mexico	USGS Paper 603, Uranium Resources of New Mexico		Admin. Record
3	Varies	Maps, sketches, & aerial photos			Admin. Record
2	Feb. 1960	Article in "The Pipeliner", 'Going Below at San Mateo'	El Paso Natural Gas Company		Admin. Record
	Dec. 15, 1959	Certification of the San Mateo Mine Grants	Unknown	Unknown	Admin. Record

Last updated on: May 2, 2011



Photo 1: San Mateo Mine North Pad (foreground) and waste rock pile (background) (April 08)



Photo 2: San Mateo Mine waste rock pile (April 08)

San Mateo Mine Area Photographs

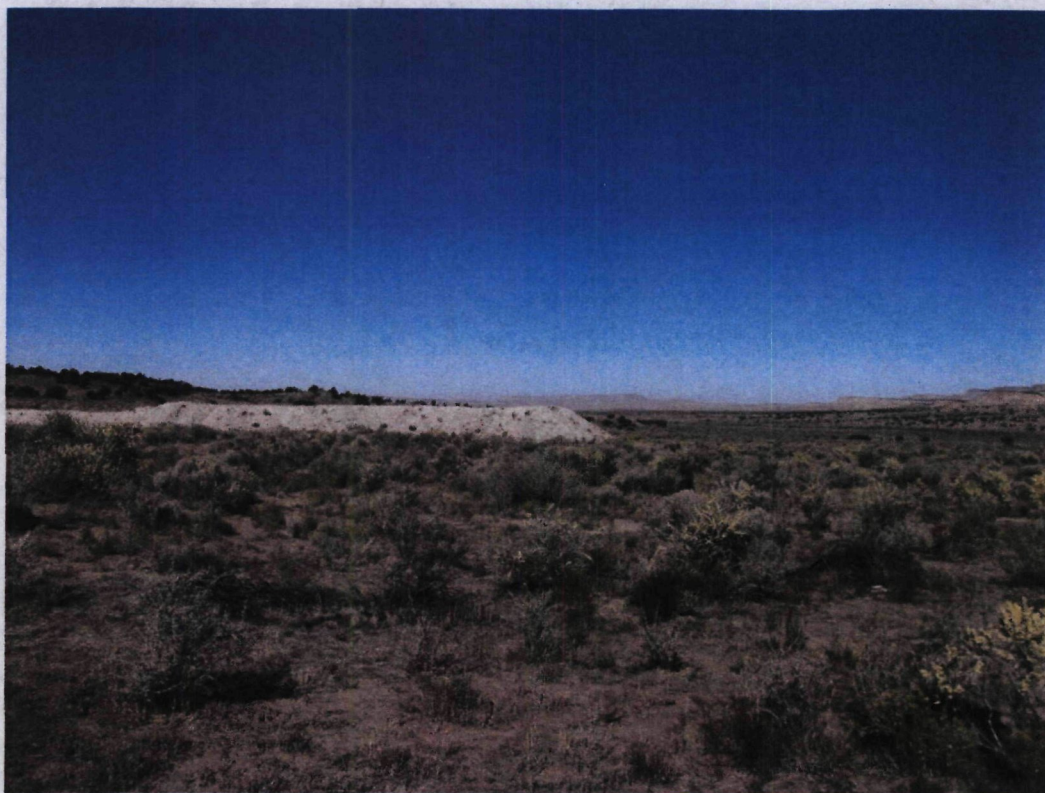


Photo 3: San Mateo Mine North Pad (April 08)



Photo 4: View of the adjacent valley North of the Mine with Route 334 visible (April 08)



Photo 5: Access gate through Schmitt Ranch through which temporary access was granted (Jan 08)



Photo 6: Road leading to San Mateo Mine from Route 334 (Jan 08)

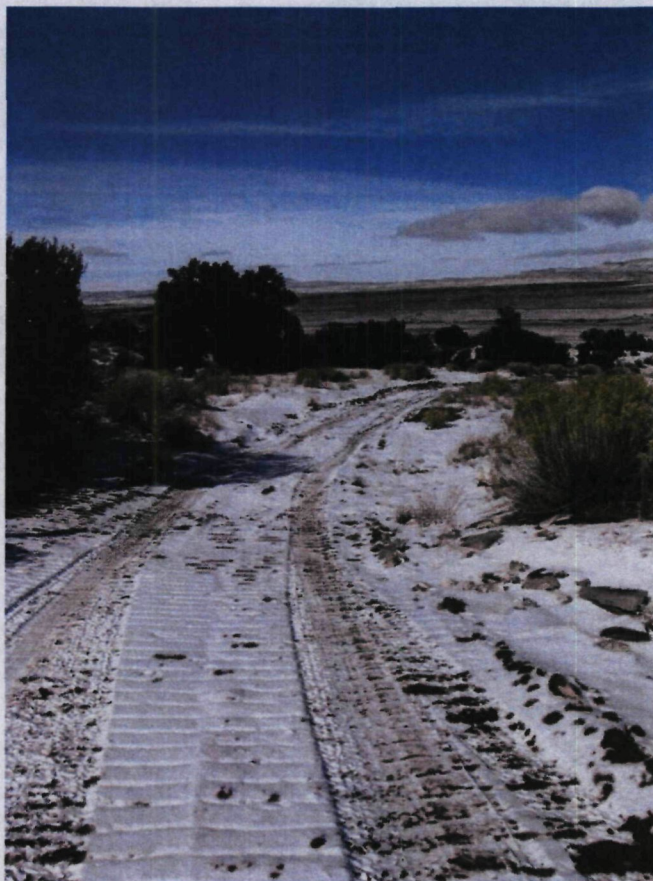


Photo 7: Road leading to San Mateo Mine Site from Route 334 (Jan 08)



Photo 8: On-site arroyo as a tributary to San Mateo Creek (Jan 08)

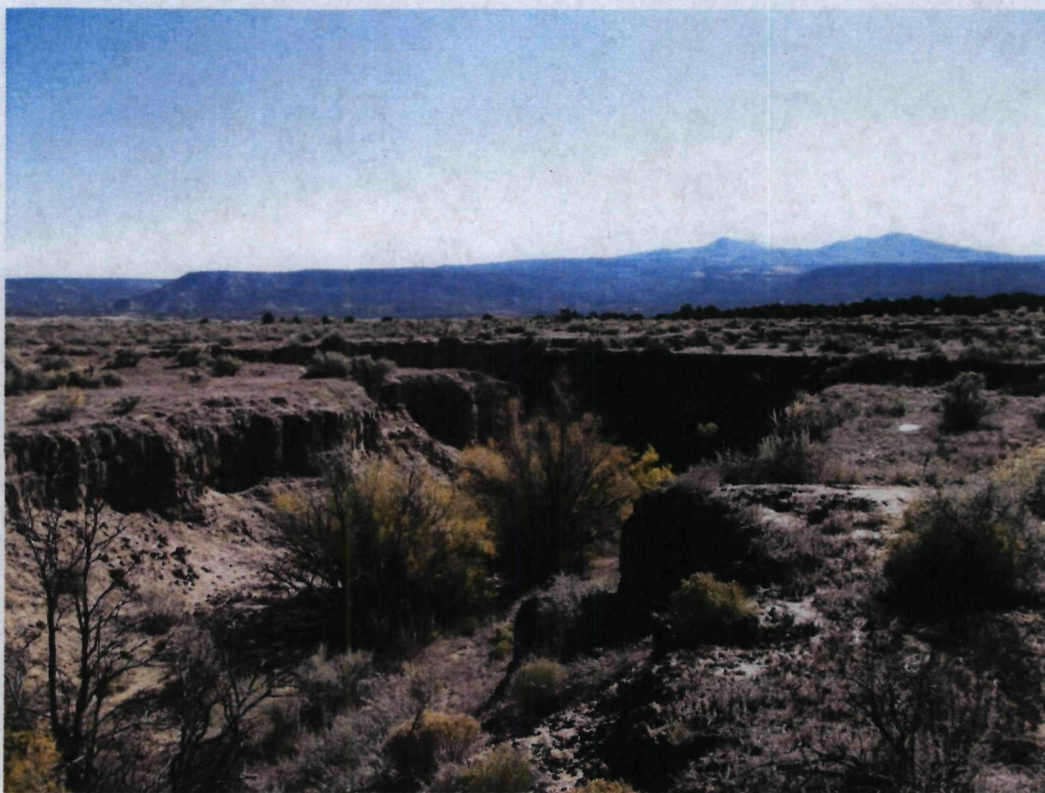


Photo 9: On-site arroyo as a tributary to San Mateo Creek (Oct 08)



Photo 10: On-site arroyo as a tributary to San Mateo Creek (April 08)

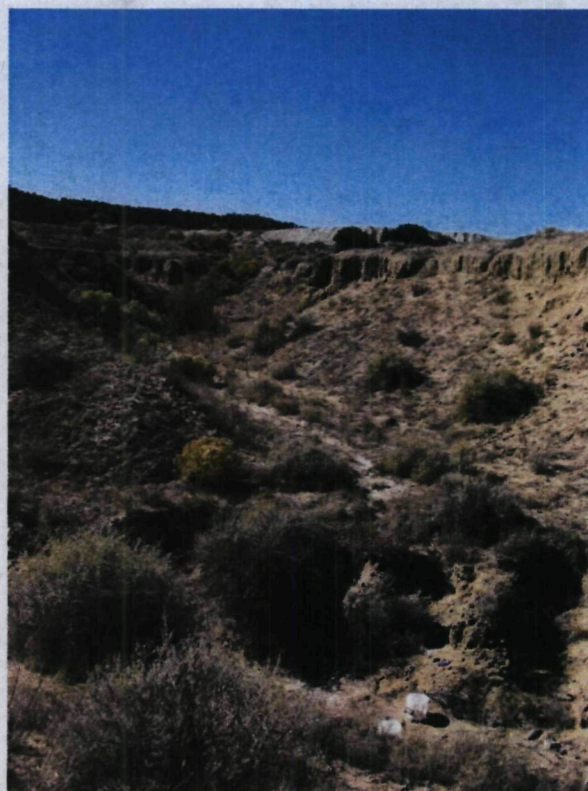


Photo 11: Downstream inside the arroyo facing South toward the Mine (Oct 08)



Photo 12: Gamma Walkover Survey sampling at the bottom of the arroyo bed (Oct 08)

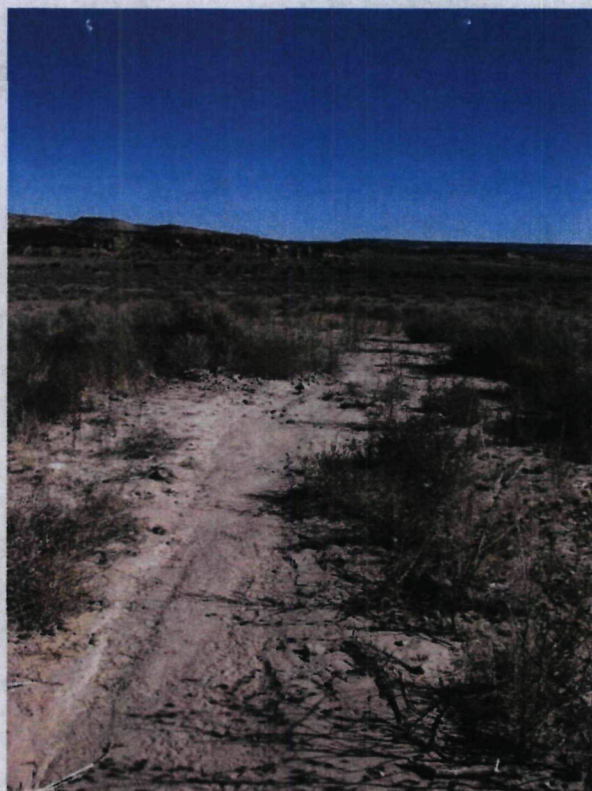


Photo 13: Surface drainage channel leading away from the waste rock pile (Oct 08)



Photo 14: North pad constructed with waste rock (Jan 08)

Implementation of UAO Reform Questionnaire

(form revised 5/24/99)

- This form should be filled out for each UAO issued pursuant to CERCLA 106 (except those issued for site access only).
- Please fill out this form **no later than two weeks** after issuance.
- Once completed, the form should be returned to Mike Northridge or Helena King, USEPA, mail code 2272A, 401 M Street, S.W., Washington, D.C. 20460, or through LAN mail.**
- If you have any questions regarding the questionnaire, please call Mike at (202)564-4263 or Helena at (202)564-5124.

Site Name: San Mateo Mine

Region: 6

Date Prepared: 4/5/11

Preparer Name: Michael Hope

Position: USDA OGC

Phone Number: 303-275-5545

- 1) a) Date UAO issued: _____ b) UAO Number: _____
(if available) (e.g., UA002)

- 2) Purpose of UAO (please ☒ appropriate box):
(Note: Do not include UAOs that are for **access** only)

Removal	RI/FS	RD/RA
		X

- 3) Number of parties receiving the UAO: 4
- 4) Number of parties receiving the UAO that were governmental (local, state or federal) entities: 0
(Note: Please provide names of any governmental parties that received the UAO)

- 5) Number of parties that did **NOT** receive the UAO: 0

Note: Parties are considered excluded when:

- There is sufficient evidence to make a preliminary determination of potential liability under §107 of CERCLA; and
- They have not previously reached full settlement with the government; and
- They were not issued the UAO.

STOP here if the answer to question 5 is zero.

- 6) If parties were excluded from the UAO, please provide the reason(s) for excluding them in the chart on the next page:

Note: Agency policy provides for only several acceptable reasons for excluding PRPs from a UAO. These include:

- 1) lack of evidence of the party's liability;
- 2) the party is financially non-viable;
- 3) the party made only a relatively minor contribution towards the site conditions (e.g., sent only a de minimis amount of waste to the site);
- 4) consideration of work that a PRP has already conducted at the site (or has agreed to conduct), especially where such work is equivalent to that PRP's "fair share;" and
- 5) the UAO was already being issued to a large number of PRPs and the inclusion of

additional parties would have raised manageability concerns.

- 7) Did the package presented to the Regional decision-maker identify the PRPs not receiving the UAO, and the reason(s) for their exclusion? *Note: Along with this questionnaire, please submit a copy of the excerpt from the UAO package that identifies the excluded PRP(s) and the reason(s) for exclusion, plus a copy of the cover page for the package (showing, e.g., the name of the decision-maker as the recipient of the package).*
- A) If the information was not in the UAO package but instead was presented to the Regional decision-maker via a different context, then please prepare a memo to the file now and submit a copy to HQ. The memo should document the different means that were used to present this information to the decision-maker (e.g., via written briefing materials separate from the UAO package itself).
 - B) If there is no paperwork documenting that the decision-maker was presented with information regarding both the existence of excluded PRP(s) and the reason(s) for exclusion, please now prepare an appropriate memo to the decision-maker and submit a copy to HQ.
- 8) If the reason (or one of the reasons) for excluding a party(ies) was lack of financial viability, did the UAO package contain (or cross-reference) documentation for each PRP that allegedly did not have an ability to pay cleanup costs? *Note: For each PRP excluded due to financial viability, the 8/2/96 procedures call for PRP-specific documentation of financial condition.*

.....Please don't hesitate to contact Mike Northridge at (202) 564-4263 or Helena King at (202) 564-5124 with any questions regarding this questionnaire or suggestions for improving this Reform.....